4.

B Champlain

Ms. Coll. 629 v. 3

Anatomy

2. Of what is the human body composed?
A. Of Solids & Fluids. —
2. By What Names are the Solid parts expressed?
A. Bone, Cartilage, Ligament, fibre, Membrane, Vessel, Artery, Vein, Nerve, Muscle, gland, fat, Viscus, Organ &c. —

2. What is meant by a Bone?
A. It is the hardest, most Solid, and inflexible part of the human body.
2. What is meant by a Cartilage?
A. It is a white or pearl colour'd Substance ~~softer~~ smooth, polish'd, pliable & elastic. softer than a bone, but harder than any other part. —
2. What is meant by a Ligament?
A. It is a white, fibrous, compact Substance more pliable than Cartilage. — difficult to be broken or torn —

2. What is meant by a fibre?

A. A Fibre is a small filament which appears to be the most simple part of the body and which by their different disposition & Connections compose all the other parts.

2. Do the fibres differ in Substance

A. Yes, they are either Membranous, fleshy tendinous, or bony!

2. Do they differ in direction?

A. Yes, they are either Straight, oblique, longitudinal, transverse, circular or Spiral;

2. Do they differ in size?

A. Yes they are either large, small, long or short.

2. What do you understand by a Membrane?

A. A Membrane is a pliable texture of Fibres interwoven together in the same plane

2. Do Membranes differ in their Composition.

A. Yes, small portions of membranes are called pellicula — and some membranous Laminæ united together by the intervention of a particular substance composed of this sort of pellicles and called cellular Substance —

2. What are Vessels?

A. They are Tubes more or less flexible composed of different Membranes —

2. What are the strata of these Membranes called?

A. Coats or Tunicæ —

2. What is the design of the Vessels.

A. To contain fluids —

2. How are the Vessels distinguish'd &c

A. Into Blood vessels, Vasa lactea, or Lacteals ~~&~~ and Lymphatica or Lymphatics —

2. What are the smallest extremities of all Sorts of Vessels called?

A. Capillaries —

2. ~~How~~ how many kinds of
Blood Vessels are there?
A. two, Arteries and Veins
2. Are Arteries thicker than Veins
A. Yes! —
2. How are Arteries distinguish'd
in living Bodies from the Veins?
A. By a certain beating called the pulse
2. Have the Veins Valves
A. Yes!
2. How are they situated?
A. The Openings of these Valves are
broad and turned to that End
which is next the heart but their
bottoms are turned the contrary Way
2. Are those Valves always single?
A. No, they are sometimes double
triple &c. —
2. What is meant by a Nerve
A. They are white Tapes which
proceed

proceed from the Cerebrum, Cerebel=
=lum, and Spinal Marrow, and
are spread over all the parts of the
body by filaments and Ramifications

2. How is the Cavity of each Nerve
Rope filled?

A. By a great Number of Membranous
longitudinal Septa, and by Medullary
filaments which lie between the
Septa. —

2. What is a Muscle?

A. A Bundle of Fibres of a Red=
=dish Colour and of different
lengths —

2. How do the middle portions of
y Moving Fibres or fleshy part differ
from the extremities?

A. On being red, thick, soft, and
capable of contraction —

2. What is the appearance of the Exterior

A, They are white, small, compact,
and incapable of Yeilding -
2. What is the Middle portion of
each moving Fibre called -
A. Flesh -
2. What are the extremities called?
A. Tendons. —
2. What is a Gland?
A. They are Clusters or Molecules
or Bodies made up of Arteries,
Veins, Nerves, and other particular
Vessels, and of a Substance which
unites all these together in their
different folds, contortions, &
interteatures, all invested by
a Membranous Covering. —
2. What is the office of a Gland
A. To Separate from the Mass of Blood
certain fluids —
2. How is this performed? —

A. By means of certain secretory
Vessels—

2. How are those fluids discharged?

A. By means of certain ~~secretory~~ Vessels
Called excretory—

Fat or Marrow. 2. What do you
Understand by these Terms—

A. By the fust we generally under=
=stand an oily, soft, white or yel=
=lowish substance, of different con=
=sistencies collected between the Skin
and the Muscles in the interstices
of the Muscles about the Viscera.

2. What is Marrow?

A. Is a kind of fat wch differs from
the common in the fineness of
the membranous texture in the
Subtility of the oily matter and
its situation within the bones.

2. What is meant by Viscera

A. They are parts contained in a

great Cavity without being con=
=nected to it through their whole
extent or circumference-

- 2. Are the Stomach intestines
&c in the Abdomen & Lungs
in the Thorax considered Viscera.
A. Yes. —

General division of the human Body —

2. How is the human body divided?
A. Into the head, Trunk & Extrem=
=ities -
2, How is the Trunk again Sub=
=divided?
A. Into the Neck, Thorax, and
Abdomen;
2. How are the Extremities divided?
A. Into Superior, called arms and
inferior called Legs.
2. How did the Ancients divide the
Body.

A. into three great Cavities which they termed Venters —

2. What did they call the head —

A the upper Venter, the Thorax the middle Venter and the Abdomen the lower Venter —

2. What is the most natural & plainest division of the body?

A. Into the head, Neck, Thorax, abdomen, Arms & Legs. —

Extern^e parts of the Head —

2. How is the Head viewed on the out= =side divided?

A. Into the hairy Scalp and face

2. What is the uppermost part of the hairy Scalp termed — A. Vertex or fontanella?

2. The Back part — Occiput.

2. What the Lateral parts? the Temples.

2. What Arteries are on each Side of the hairy Scalp?

A. Arteria carotis externa, in genere
Arteria temporalis, Arteria occipitalis.
Arteria angularis, by communication
Arteria frontalis, a branch of the
internal Carotid. —

2. What are the Veins?

A. Vena jugularis externa. Vena
jugularis externa posterior; Vena
temporalis, Vena occipitalis,
Vena jugularis externa anterior
by communication; Vena ju=
=gularis interna by communication.

2. What are the Nerves on each
side of the hairy Scalp? —

A. Nervi Suboccipitales common=
=ly called the 10th pair from the
Medulla Oblongata; par primum
Cervicale, by communication;
Ramus frontalis of the orbitary
or Opthalmic Nerve. Nervus
Sympatheticus Minor called

the portio dura of the auditory Nerve.

2. What portion of the Surface of the head does the face comprehend—

A. That which lies between the hairy Scalp and Neck— Viz The forehead Eyebrows, palpebra, eyes, nose, Mouth, Chin, Cheeks, & ears, —

2. What are the external parts of the Eye—?

A. The anterior portion of the Globe of the Eye, the Membrana Conjunc= =tiva, the Cornea lucida, caruncula lacrymalis, angles of the palpebra and the Cilia or hairs of each palpebra.

2. What are the internal parts of the Eye?

A. The Globe of the eye, the Iris and pupil, the Tunica Sclerotica, or Cornea opaca, the Choroides, Arachnoides, Chrystalline, vitreous humour, aqueous humour, the Anterior and Posterior Chambers,

the Muscles and the optic Nerve.

2. What are the extern^e parts of the EAR?

A. The great Concha, the convex Side of this Concha, or hinder part of the ear, the great border, the helix or fold, the concavity, the broad eminence or antihelix, the small anterior eminence or tragus, the small posterior eminence or antitragus, the lobe or low= =er Extremity of the Ear and the Meatus. —

2. What are the external parts of the Nose —

A. The upper extremity or Root of the Nose, the Arch or back, the Sides of that Arch, the Tip of the Nose, the Alæ, the Nares and the Septum Narium.

the internal parts are the Cavity and the Bottom of the Nares, the Convolutions the Maxillary, Sphenoidal, frontal and Ethmoidal Sinuses. —

2. What are the external parts of the Mouth —

A. The Lips - the angles of the Lips the Border or Edge of the Lip - the Fossula which runs from the Septum Narium to the Edge of the upper Lip, and the transverse fold which seperates the upper Lip from the Chin.

2. What are the internal parts of the mouth ?

A. The Palate, the Septum Palati, the Uvula, the amygdalæ, Gums, frænum of the Lips, the Tongue, its Apex, Roots, Side,

and frontum. the other internal parts of the Mouth, Eye, Nose, and Ear, such as the Glands, Membranes, Muscles &c. to be described hereafter.

2. What are the Cheeks ?

A. The Lateral parts of the Face.

2. What is the Chin ?

A. The anterior protuberance, by which the lower part of the Face is terminated.

2. What is the middle part of the Chin termed ?

A. Basis. in the Middle of the Chin there is sometimes a Fossula.

2. What are the exterior Arteries which belong to each Side of the face ?

A. Arteria Carotis externa - Arteria facialis, Arteria temporalis; Arteria Carotis interna, by Communication.

2. What are the exterior Veins distributed to each side of the face?

A. Vena jugularis externa, in general
Ven: jug: intern: — By Communication
Ven: facialis; Vena temporalis. —

2. What are the exterior Nerves spread to each side of the face?

A. Nervus olfactorius, Nervus orbitarius
sive Opthalmicus; N. Maxillar: Sup
Nerv: Maxillar: inferi: portio dura
of the auditory Nerve; the 2nd pair
of the Nervi Cervicales —

2. What are the arteries of the forehead?

A. Arteria temporalis, w is a branch of
the external Carotid; Arteria angularis
w is a branch of the external Carotid?

Arteria frontalis, which is a branch of the internal Carotid.

2. What are the veins of the forehead?

A. Vena frontalis; Vena temporalis; Vena Angularis; Sinus orbitarius.

2. What are the Nerves of the forehead?

A. Nervus orbitarius sive Ophthalmicus; Nervus Maxillaris superior, Nervus Maxillaris inferior; Portio Dura of the Nervus Auditorius. —

2. What are the Arteries which go to the Eye

A. Arteria Oculoris, a branch of the internal Carotis; Arteria facialis sive Angularis, it is a Branch of the external Carotis; Arteria Maxillaris interna, a Branch of the external Carotis. —

Q. What are the Veins belonging to the Eye?

A. Vena temporalis, a Branch of the posterior external Jugular; Vena frontalis, and Vena Angularis, ie are Branches of the Vena facialis; Sinus orbitarius; Vena jugularis interna, by Communication. —

Q. What are the Nerves belonging to the Eye?

A. Nerv: Optici: Nerv. Motor Communis — or 3d pair; Nervus trochlearis, or 4th pair — Nervus orbitarius sive Ophthalmicus; and nervus Maxillaris superior, branches of the 5th pair; Nervus Motor externus, or 6th pair — Portio dura of the Auditory Nerve; Nerv: Sympathet: Max: by Communicatio

2. What are the Arteries distributed to the Nose?

A. Arteria Maxillaris externa;

Arteria Maxillaris interna;

Arteria Occularis; Arteria Labium orbicularis, by Communication.

The Veins are of the same Name.

2. What are the Nerves it go to each Side of the Nose Called?

A. Nerv: Facior; Nerv: orbitarius five opthalmicus, both immediately and by Communication. — Nerv: Maxillaris Superior; portio dura of the Auditory Nerve.

2. What are the Arteries it go to the Ear Called?

A. Arteria temporalis, a branch of the external Carotid; Arteria Auricularis, a Branch of the temporalis; Arteria Occipitalis by Communication, Arteria Vertebralis, by means of the Arteria basilaris, which is a Continuation of it. Arteria Carotis interna, by Communi

2. What are the Veins belonging to the Ear?

A. Vena temporalis; Vena Occipitalis Vena Cervicalis; Vena jugularis interna, by several Communications Sinus petrosus duo a matris.

2. What are the Nerves distributed to the Ear?

A. Nervus Maxillaris inferior

the third branch of the fifth pair; Nervus Auditorius, the 7th pair; Nervus Suboccipitalis, the 10th pair, by Communication the 2nd Cervical pair; Nervus Sympathiticus Maximus.

Veins

2. What are the Arteries which go to the Mouth Tongue &c.

A. Vena Maxillaris externa; vena Maxillaris interna: Vena Ranina all these are Branches of the external jugular. Vena jugularis interna, by several Communications; Vena Guttunalis Superior —

2. What are the Arteries wch go to the Mouth Tongue &c.?

A. The artery of the Chin; Arteria Coronaria sive orbicularis Labiorum, both being Branches of the extern. Carotid;

Arteria Maxillaris interna; arteria palatina
a Branch of the Maxillaris externa,
Arteria Sublingualis.

2. What are the Veins belonging to each Side of the Mouth, Tongue &c.?

A. Vena Maxillaris externa; Vena Maxillaris interna; Vena Lingua all these are Branches of the external jugular Vena jugularis interna, by several Communications

2. What are the Nerves distributed to the Mouth, Tongue and Salivary Glands?

A. Nervus Maxillaris superior; Nerv: Maxillar: inferior — Portio dura of the Auditory Nerve; the 8th pair; the 9th pair — The 2nd pair of cervical Nerves, Nervus Sympathecticus Maximus

Q. How are the Cheeks furnished with Arteries and Veins?

A. From the Nearest Ramifications of the temporal and Maxillary Arteries and Veins; and with Nerves from the portio dura of the auditory Nerve, and from the Superior and inferior Maxillary Nerves—

Parts within the Cranium

Q. How Comprehensive is the Cranium?

A, It takes in all that portion of the head which reaches from the upper part of the orbit to the upper and back part of the Neck; at the Sides it extends as low as the Passages into the Ears.

Q. How is it lined?

A. By the dura Mater, and divided by a process of that Membrane into a large upper Cavity, and a Small under one.

Q. What does the upper Cavity Contain?

A. The Cerebrum.

Q. What does the under one Contain?

A. The Cerebellum and Medulla oblon=
=gata.

Q. What are the Arteries of the Brain?

A. Arteria Carotides internæ;
Arteriæ Vertebrales.

Q. What are the Arteries of the dura
Mater?

A. The Arteria duræ Matris, Mediæ
Maximæ &C.

Q. How do the Veins of the Brain Ans.

A. To the Sinuses, and these end in Venæ
jugulares internæ. —

Parts of the Neck in gen.l

2. How is the Neck divided?

A. Into the anterior part, or throat and posterior part or Nape.

The Throat begins by an eminence and ends in a fossula—

2. What does the Neck Contain?

A. The Larinx - part of the trachea arteria, the Pharynx, a part of the Oesophagus, the Musculi Cutanei, Sterno Mastoidei, Sterno Hyoidei, thyro hyoidei, omo hyoidei, Splen Complexus, Musculi Vertebrales, ii lie upon the first 7 Vertebra.

2. What are the Arteries which go to the Neck?

A. Arteriæ Carotides in general

Arteria Carotides externa —
Arteria Carotides interna —
Arteria Vertebrales — Arteria
Cervicales. —

2. What are the Veins belonging
to the Neck?

A. Vena jugulares, in general,
Vena jugularis externa
Vena jugulares interna
Vena Cervicales;
Vena Vertebrales;

2. What are the Nerves distributed
to each Side of the Neck?

A. Portio dura of the auditory Nerve
the 8th pair, Nervus Accessorius
Octavi pairs; the 9th pair;
Nervus Sub-occipitalis, or 10th pair
y^th Cervical pair — Nerv. Sympath. Max

Parts of the Thorax

2. How far does the Thorax extend?

A. To the extent of the Sternum, Ribs, and Vertebra of the back, both outwardly and inwardly. —

2. How is the Thorax divided?

A. Into the Anterior part, called Commonly the Breast, the posterior part, Called the Back; and the lateral parts called the right and Left Sides. —

2. What are the extern[l] parts of the Thorax?

A Besides the Skin and Membrana Adiposa, are principally the Mammæ and Muscles w[h] Cover the Ribs and fill the Spaces between them.

Q. What are the Muscles called?

A. Pectorales Majores and Minores, Subclavii, Serati Magores, Serati Superiores Postici, ~~Latissimi~~ Dorsi, and ~~Vertebrales~~; and to these we add the Cucularis Rhomboides and Muscles ~~is~~ cover the Scapulæ

2, ~~What is Contained~~ The Cavity of the Thorax is lined by y^e^ pleura and divided into two lateral Cavities by a Membranous Septum named Mediastinum which is a production or Duplicature of the Pleura. —

Q. What are the parts Contained in y^e^ Cavity of the Thorax Called?

A. The Heart, Pericardium, Trunk of the Aorta, Great arch of the Aorta,

beginning of the Carotid and Subclavian
Arteries; the Superior portion of
the descending Aorta, the intercostal
Arteries, The Vena Cava Superior,
Vena Azygos, termination of the
Subclavian Vein, a portion of
the Aspera Arteria, and of the Oso=
=phagus, the Ductus Lacteus, or
thoracicus, the Lungs, Pulmonary
Artery, Pulmonary Veins &c.—

~~The Arteries & Veins~~

2. What are the Arteries and Veins
which particularly belong to the
Thorax?—

A. Arteria and Venæ thoracicæ,
superiores and inferiores, Arteria
and Venæ Mammariæ, internæ
et externæ; Arteria et Venæ

Spinales, with the Venal Sinuses
of the Canal of the Spine.

Q. What are the Nerves distributed
to the Thorax?

A. Nervi Sympathetici medii - or 8th pa
Nervi Sympathetici universales
Commonly Called intercostales
the 12 Dorsal pairs; Nervi diaphrag=
=matici. Nervi thoracici externi. -

Q. How is the Cavity of the Thorax
terminated downward?

A By the Diaphragm, which parts
it from the abdomen. ——

Parts of the Abdomen.

Q. Where does the abdomen begin?

A. Immediately under the Thorax. and terminates at the Bottom of the Pelvis of the Os a innominata.

Q. How is it divided?

A. Into Regions — 3 Anterior

Viz. 1 Epigast. it begins immediately under the appendix ensiformis, at a small depression called the pit of the Stomach — ~~it~~

This Region is subdivided into 3 parts — Epigastrium already Called and two lateral Regions Hypochondria —

Umbilical Region and two sides called Ilia or the Flanks. ÷

The Hypogastric Region - divided into 3 parts - 1 middle called pubis; and two lateral called inguina, or the Groins.—

The Lumbar Region reaches from the lowest Rib on each side, and the last Vertebra of the Back - to the Os Sacrum and neighbouring parts of the Ilia —

It takes in also the Musculus quadratus Lumborum on each side, the lower portion of the Sacro lumbalis, of the Longissimi and latissimi Dorsi, the Multifidus Spinæ &c. —

The Space between anus and parts of Generation called Perinæum

The Cavity of the abdomen lined by peritonæum

Q. How is ye Cavity of the Thorax
seperated from ye abdomen?

A. By the Diaphragm.

Q. How is it terminated?

A. By the Musculi Levatores ani-

Q. What does this Cavity Contain?

A. The Stomach and Intestines; wch
are commonly devided into 3 Smaller
portions, named Duodenum
Jejunum and Ilium — and three
large Cæcum Colon and Rectum
it Contains likewise the Mesentery
Mesocolon, Omentum, liver, Gall
Bladder, Spleen, pancreas, glands
of the Mesentery, Vasa Lactea, Recep-
=taculum Chyli, Kidneys — Renal
Glands, Ureters, Bladder, and
the internal parts of Generation —

2. Which are the principal Arteries of the Abdomen?

A. Arteria epigastrica superiores, which are the lowest portions of the Mammaria interna; Aorta inferior; Arteria Celiaca, Arteria Mesenterica superior; Arteria Renales, formerly called emulgentes; Arteria Spermatica; Arteria Mesenterica inferior; Arteria lumbares; Arteria iliaca; Arteria hypogastrica; Arteria epigastrica inferiores, Arteria hemorrhoidales, Arteria pudica.

2. What are the principal Veins?

A. The inferior portion of the Vena Mammaria interna, vena Renales; Vena lumbares; Vena Spermatica; Vena iliaca; Vena hypogastrica

Vena Mesaraica Minor, sive
hemorrhoidalis interna, Vena
Mesaraica Major, Vena Splenica
Vena porta Ventralis; Vena porta
hepatica -

2. What are the principal Nerves

A. Nervi Stomachici - Nervi
Sympathet. Max. the inferior
portion - the two semilunar
or plexiform Ganglions -
Plexus stomachicus; Plexus
hepaticus; Plexus splenicus;
Plexus renales; Plexus mesenteric
superior; Plexus mesentericus
inferior; Nervi Lumbares. Nervi
Sacri; Nervi Crurales, Nervi
Sciatici —

Parts of the upper Extrem!

~~Ans~~ Q. How is the Arm divided. ?

A. Into Shoulder, Arm-
fore-Arm and hand-—

also
Stump of the Shoulder, the Axilla or Arm pit, the Elbow, the fold of the Arm, and the hollow of the hand-

Q. How is the Stump of the Shoul-
=der formed ?

A. By the fleshy Belly of the Delto-
=der- and the Axilla, by the Corresponding edges of the pectoralis Magor and Latissimus Dorsi-

Q. How is the Arm principally Covered?

A. By the Biceps, Brachialis and Triceps. —

The Muscles of the Thumb and little finger are Called lumbricales and interossei —

Q. Which are the Arteries of the whole upper Extremety?

A. Arteria Axillaris, Arteria humeralis, Arteria Scapularis, Arteria Articularis, Arteria Brachialis: Arteria Collaterales, Arteria Cubitalis, Arteria Radicalis Arteria interossea anterior; Arteria interossea posteriores .. The Superficiae and deep arches in the palm of the hand —

Q. What are the Veins of the upper Extremity Called?

A. Arcola venosa dorsi Manus; Vena Salvatella, Sive Auricularis; Vena Cephalica Cubiti, Sive Ulnaris Vena Mediana, or Major, Vena Mediana Cephalica, Vena Mediana Basilica - Vena Brachii basilica; Vena Musculares; Vena Scapulares - Vena Axillaris -

Q. Which are the Nerves of the upper Extremity?

A. Nervi Brachiales - formed by the last four Cervical and first dorsal pairs; Nervus Scapularis; Nervus articularis, Nervus Cutaneus, Nervus Musculo Cutaneus; Nervus Musculares Nervus Ulnaris; Nervus Radialis. —

Parts of the Lower Extremities

Q. How divided?

A. Into the Thigh, Leg and foot.

Q. How is the Thigh formed?

A. By the Muscles chiefly which surround the os femoris, which are themselves invested by the fascia lata, viz the Glutæus Maximus, two Vasti, Crureus, biceps, triceps, Semi Membranosus, Semi-tendinosus, Gracilis internus, Gracilis anterior or Rectus, and Sartorius.—

The Leg has few Muscles in front— But a great many behind where the Gastrocnemii and Soleus form a kind of Belly called the Calf of the Leg.

Q. What is that convex part of the foot near its Articulation with the Leg termed?

A. The Neck of the Foot.

Q. What is the under part Called?

A. The Sole of the Foot.

Q. What are the Arteries of the whole lower Extremity Called?

A. Arteria Obdunatrix - a Branch of the Hypogastrica; Arteria Glutea a Branch of the hypogastrica; Arteria Sciatica - Arteria pudica. Arteria Circumflexa externa & interna; Arteria Vasta; Arteria Crurales; Arteria poplitea; Arteria tibialis Anterior; Arteria tibialis posterior, Arteria peronea, Arteria plantaris. ——

The Veins of the whole lower ex=
=tremity are these -

Vena plantaris; Vena saena
Saphena, Vena Magna
Saphena, Vena tibiales,
Vena fibulares; vena
poplitea, Vena sciatica,
Vena glutea, Vena femoralis
Vena obturatrix. —

The Nerves of the whole lower
Extremity are these? viz

Nervus Cruralis - formed from the
five lumbar - Nerv. sciaticus
formed by the union of the last
two lumbar and first 3 Sacri -
Nerv: Sympathet. Max. by Communica
w Nervi lumbares & Sacri - Nerv. popliteus
N. Sciat internus vel poplit. intern. N.
Sciat externus sive Poplit extern. N. tibialis.
N. fibularis; Nerv

Consumption No I
Dropsies No 6
Hydrocephalus — 4
Gout 6
Cynanche Trachealis II

Remarks

1. Pulmonary Consumption is induced by predis=
=posing debility.
Dr Rush says he wipes this from the exciting & remote
Causes which produce it —
The remote Causes are — pneumony, Catarrh, hemptisis
Rheumatism, Gout, asthma, Scrophula, Chronic diseases of
the Stomach, Liver and kidneys, nervous & intermitting
fevers, Measles, repelled humors from the Surface
of the Body. Venereal Disease — ~~obstructed Menses~~
Sudden growth about the age of puberty, grief
and all other debilitating passions of the mind;
Hypochondriasis, improper lactation, excessive
evacuation of ale kind, more especially by stool
cold and damp air, a cough external Violence
acting upon the body, and finally every thing that
tends directly or indirectly, to diminish the
Strength of the System. —

The most frequent exciting Cause of Consump-
= tion is the alternate application of heat
and Cold to the whole external surface
of the body — but all the remote causes
which have been enumerated, operate as
exciting causes of consumption, when they
act on previous debility. — Original
injuries of the Lungs seldom excite this
disease, except they first induce a debility
of the whole System by a troublesome
and obstinate Cough. —

2° From the debilitating Occupations and
habits of Persons who are most liable
to this disease. —

3° From the period in which Persons
are most liable to be affected by this
disease — this is generally between
the 18th & 36th Year of Life — tho it
sometimes appears in Children & to Persons
beyond the 40th or even 60th Year of Life —

II The Pulmonary Consumption is a
primary disease of the whole System.
this I infer—

1 From the causes which produce it
acting upon the whole System—

2 From the Symptoms of debility which
always precede the affection of the lungs
these Symptoms are a quick pulse, es=
=pecially towards evening; a heat &
burning in the palms of the hands;
faintness head ach, Sickness at Stomach
and an occasional Diarrhea— I have
frequently observed each of these Symptoms
for Several Months before I have heard
of a single complaint in the breast—

3 From the pulmonary Consumption
alternating with other diseases which

obviously belong to the whole system
I shall briefly mention them—

1 Rheumatism — 2d Gout — 3d Madness
4 Pain in the teeth — 5 Head-ach
and Dyspepsia also pain and noise
in one Ear — Eruptions of the
Skin — a Diarrhoea or pains in
the Bowells —
He infers likewise that the consumption
is a disease of the whole system from
its being suspended during pregnancy. —
Dr R. reasons by analogy and says the
predisposing cause of apoplexy is a general
debility of the system, produced by eating
and drinking intemperately. — the Phenom
=ena of this disease are produced by an
effusion of Blood or Serum, in consequence
of a morbid distension or rupture of the

Vessels of the Brain — The Pulmonary Con=
=sumption begins & ends in the same
way allowing only for the difference
of situation & structure of the brain
and Lungs — after the production of
predisposing debility from the active
of the remote causes formerly enumerated
the fluid are determined to the weak=
=est part of the Body — hence Effusions
of Serum or Blood take place in
the Lungs. — When Serum is effused
a pituitous or purulent expectoration
alone takes place — when blood is
discharged, a disease called the Hemop.
=tysis is induced. — hence he
sometimes calls the Consumption
an Apoplexy of the Lungs — Dr K
says it is remarkable, that the Consumptive Diathesis
is more frequently derived from paternal than Maternal ancestors

Notes from Rush on Consumption.

He supposes Consumption to be preceded always by debility — He says it seems to be a law of the System that general debility should always produce some local disease. — He thinks the Debility in Cases of Consumption is seated chiefly in the blood vessels - While that debility which terminates in diseases of the Stomach and bowels, is confined chiefly to the Nerves, and that local affections of the brain arise from a debility invading alike the nervous and arterial System. —

The Symptoms which mark the first Stage of Consumption are too

Seldom observed the thinks—

They are—
1. a slight fever increased by
the least exercise — a heaviness and
dryness in the palms of the hands
more especially towards evening;
Cheamy Eyes upon waking from sleep,
an increase of thirst; a dryness of
the Skin, more especially of the
feet in the Morning, an occasional
flushing in one and sometimes in
both Cheeks; a hoarseness, a slight
or acute pain in the breast—
a fixed pain in one side or shooting
pains in both sides — head ach;
occasionally sick and fainty fits—
a deficiency of appetite and a

general indisposition to Motion
or exercise of every kind. —
The Remedies in this Stage —
are — to avoid Sedentary Employ=
=ments, damp or cold Situations,
and whatever tends to weaken
the System. — When the Disease
has not Yielded to this desertion of
its remote & exciting causes I have
Recommended the Cold Bath —
Diet and Bark with advantage.
however improper these Remedies
may be after an inflammatory
or Pectic State is formed —
In this a Remedies I would Recommend
a Diet moderately Stimulating and
gentle exercise. —

If these remedies have been neglected
in the first stage it generally terminates
in different periods of time, in
pulmonary affections, which show
themselves under one of the three
following forms —

1. A fever accompanied by a cough
a hard pulse and a discharge of
Blood or mucous matter from
the lungs. —

2 a fever of the hectic kind accom=
panied by chilly fits, and night sweats,
and a pulse full, quick and occasionally
hard. the Discharges from the Lungs
in this State of the Disease are fre=
=quently purulent. —

3.

No 2

A fever with a weak frequent pulse, a troublesome cough, and Copious purulent discharges from the Lungs a hoarse and weak Voice and chilly fits and night Sweats alternating with a diarhoea. —

The Symptoms Sometimes vary- The Pulse is Sometimes Slower than Natural - Sometimes an absence of Chilly fit - In mentions two Cases which terminated fatally in which there was neither Cough nor fever for Several Months —

He divides it in three different States of the System. —

1 The Inflammatory 2 Hectic 3 Typhus

1 Inflam.ⁿ State —

Remedies

1 Bleeding — the most this remedy with
great Success in every Case of Consumption
attended by a hard pulse or a pulse
rendered weak by a Laborious transmission of the blood through the Lungs —
In the Months of Feb.ʸ & March 1781 —
I bled a Methodist Minister who
was affected by this State of Consumption
fifteen times in the Course of Six
Weeks. — the quantity of blood drawn
at each bleeding was never less than
eight ounces — and it was always
Covered with an inflammatory Crust.
the Days in Warm Climates bleeding
would not be so necessary. —

The least Saccharine fruits the better -

2d Remedy - Milk & Veg: Diet - not more than a pint of Milk a day.

Rice - in case of Dyspepsia a little Latter, Meats
3 Oysters Sago soft boiled Eggs -
Cornish he does not always approve -

NB The transition from a full Diet to Milk and Vegetables should be gradual and the addition
4 Note - Fry of animal to Vegetable Diet should be made with the same caution.

5 Cold from my act of this quick hue has arisen in the two
Cold and dry Air - & consumption.

NB. It will be better for the Patient to eat four or five times a day rather than but two or three Meals

II Hectic State of Consumption -

The Mind in him should be accommodated to the predominance of inflammatory or typhus Symptoms, for the hectic State presents each of them alternately every week - and sometimes every day to the hand or eye of a Physician. When a hard pulse with acute pains in the side and breast occur, bleeding and other Remedies for the inflammatory

State must be used; but when the
Disease exhibits a predominance
of Typhus Symptoms, the Remedies
for that State to be mentioned
immediately, should be presented
in Moderate doses. He says his
Success in the treatment of this
State has not been equal to
his wishes — Exercise he particularly
recommends —

In Typhus State — Remedies
Stimulants — Opium — Balsam
Copaiv: Peru, Oil of amber,
Turpentine and Tar, ——
Garlic, E. Alt juice of Dandelion
horehound Tea, a Decoction of the

inner bark of the wild cherry tree.
also bitters of all kinds
a Cordial & Stimulating Diet —
Milk here is improper — He says
he lately saw three persons recovered
from the lowest Stage of this State
of Consumption by the use of
Animal food and cordial drinks
aided by frequent doses of Opium
taken during the day as well as the
Night. — Oysters ~~has~~ has been thought
have performed Cures of Consumption
but if so it must have been when
they were eaten in that State of it
which is now under consideration
They are fine indeed in all diseases
of weak morbid action. —

to the Cordial Articles of Diet belong
Sweet ~~Vegetables~~ Vegetable Matters,
Grapes, Sweet Apples, and the Juice
of the Sugar Maple when taken
in large Quantities have cured the
Disease. —

He advises his Patients never to
allow their Stomachs to be empty
even for a single hour. — He
ever advises eating in the Night
to keep up the constant and gentle
action in the Stomach —

The weaker the pulse the greater is
the probability of benefit being
derived from the use of Cordial
diet and Medicines. —

The three States of Consumption do

~~the great fault~~ not observe any
regular course in succeeding each
other. They are not only complica=
=ted in some instances but they
often appear and disappear half
a dozen times in the course of
the disease. — According to the
influence of the weather, diet,
diet and the passions upon the
System. — The great Secret, there=
=fore of treating this disease consists
in accomodating all the remedies
that have been mentioned to the
predominance of any the three diff.
States of the System as manifested
chiefly by the pulse. — It is in
consequence of having observed the

Evils which have resulted from
the ignorance or Neglect of this practice
that I have sometimes wished it
were possible to abolish the Sedicious
Nomenclature of Disease altogether
in order thereby to oblige Physicians
to conform exactly to the fluctuating
State of the System in all their
prescriptions; for it is not more
certain, that, in all cultivated
Languages, every idea has its appro-
=priate Word, than that every
State of a Disease has its appropri-
=ate Dose of Medicine, the knowledge
and application of which can
alone constitute Rational, or secure
uniformly Successful practice.—

Palliative remedies which are
alike proper in nearly every
State of the Pulmonary Consumption.

1 A Dry Situation — A damp
air is generally hurtful in every
form of this Disease — a Kitchen
or a bed room below the level
of the ground has often produced
and never fails to increase a
pulmonary consumption. —

2 Country Air — The lighter & drier
the better — Situations exposed to
the Sea, should be carefully avoided
for it is a singular fact, that while

Consumptive persons are benefited
by the Sea Air, when they breathe
it on the Ocean they are always
injured by that portion of it which
they breathe on the Sea Shore. Dr R
says he has Visited many sick people soon after their arrival from
Sea, who have informed me that they had enjoyed a good health
during the greatest part of the Voyage and that they had contracted their
Indispositions after they had come on
3 A Change of Climate. by the Land Coasting

between the 30th & 40th Degrees of
Lat: are most friendly —

4 Loose Dresses & a careful accomoda=
=tion of them to the changes in the
Weather.

5 Artificial Evacuations. by
Means of Blisters & Issues. —

6 Sleeping between blankets in
Winter and on a Mattrass in
Summer.

* Dr R. says Sick Persons at Sea should be very careful in
Exposing themselves on deck or to cold when near the land —

7. The Moderate use of the Lungs
in Reading, Public Speaking,
Laughing & Singing, but carefully
to avoid Excess in this particular.
8 Certains Passions - Hope &c
fear as in Camp Life -

9. Salivation - It should never
be advised until the inflamatory
Diathesis of the System has been
in a great degree reduced. by
the depleting remedies formerly
Mentioned. -

The Digitalis he does not Recommend.
Great Care should be taken to relieve
the patient from the influence of
all those debilitating & irritating causes
which induced the Disease, during the

use of the above remedies —
Decayed teeth are one of them —

When there are several distressing symptoms & Call for relief such as Cough Night Sweats and a Diarrhoea —

The Medicines for Cough should be —

1 Demulcent Teas, Syrups & Lozenges.

2 Opiates — which should be exhibited Morning & Night and does most service when exhibited Successively in Pills, Liniments & Elixir. Paregoric —

3 Fumigations & Vaporums. — Boiling Water Poured upon equal parts of Tar & Bran.

4 Different Positions of the Body have been found to be more or less favorable to the Abatement of the Cough. —

An Erect posture generally the most favorable —

5 Silence. —

It Night Sweats — Elix. Vit
Nitric acid — drinking a pint of
Lime Water a day — or taking
at bed time a small tea Spoonful
of the fine Powder of calcined Oyster
Shells — and lastly by eating
Water Melons — This last remedy
acts as a diuretic and thus diverts
the fluid from the Skin to the
Kidneys — The Seeds of that pleasant
fruit bruised and made into a
tea might be substituted for it
at every Season of the Year and
in every Country. —

III A Diarrhea stools ~~to restrained~~
by the Chalk Julep prepared w
Laud[um] & Tinct of Cinnamon

by injections of Laudanum into the Bowels and by Astringent Aliments & Drinks.—

Radical Remedies—

Handships of a Camp or Naval Life

Different Species of Exercise—

These are active, passive, and Mixed

The active includes walking, and the Exercise of the hand and feet in Working and dancing—

The Passive includes Rocking in a Cradle—Swinging, Sailing, and Riding in Carriages. The Mixed is confined to Riding on Horseback—

Consumptive Patients in consumptions according to Species & Degrees

the Neglect of this is often calculated
to injure instead of benefitting them
and which if used with Judgement
might have been attended with
the happiest effects —

The Stimulus of every Medicine
which is intended to excite action
in the System should always be
in an Exact Ratio to its excitability.
the same rule should be applied
to the Stimulus of Exercise —

In Cases of extreme debility the
following order is to be observed
1 Rocking in a Cradle or Riding on
an Elastic Board, commonly
called a Chamber Horse —
2 Swinging —
3. Sailing — 4 Riding in a Carriage

5- Riding on Horse back -
6. Walking -
7. Running & Dancing -

In riding on Horse back the Exercise will be less or greater according as the Horse walks, paces, canters or trots in passing over the Ground. The Exercise will be less in a four wheel Carriage than in a single horse Chair and less when the horse moves in a Walking than a trotting gait. — In riding on horse back the Exercise will be less or greater According as the horse walks. paces, canters, or trots in passing over the Ground. — He mentions the Case of a Sea Captain

giving his reasons in which by
his advice he made use of the Exercises
of Riding in a Carriage and on
Horseback. I have seen many
other Cases of the good effects of
accomodating Exercise to Debility.

The first Question to be asked by a
Physician who visits a patient in
this disease should be, not what is
the State of his Lungs, but is he
able to ride on horseback. —
There are two Methods of Riding
for health in this Disease —
The first is by short Excursions;
The Second is by long Journeys.
In slight affections short Excursions
are sufficient — but in the more

advanced Stages of Consumption
they are seldom effectual, and
frequently do harm, by exciting
an occasional appetite without
adding to the digestive powers.—
They moreover, keep the System
Constantly Retracting by their
unavoidable inconstancy between
Constants points of Tone & Debility*
*The bad effects of inconstant Exercise
have been taken Notice of in the
Gout. Dr Sydenham says when
it used by fits and Starts in
this disease it does harm—
and they are unhesitatingly accompanied
at all times from the want of an

succession of fresh Objects to divert the
Mind, by the Melancholy Reflection
that they are the Sad, but necessary
Conditions of Life. —

In Consumptions of long continuance
or great danger, long journeys on
horseback are the most effectual
Modes of Exercise. — They afford
a constant succession of fresh
objects and company which divert
the Mind from dwelling upon
the danger of the Existing Malady.
are moreover attended by a constant
Change of air, and they are not
liable to be interrupted by Company
or transient Changes in the Weather

by which means Appetite and
Digestion, action & Power all keep
pace together.

Directions to Patients going a Journey

1 To avoid fatigue — this direction
must be enforced with great Emphasis
it is the Stage on which the recovery
or Death of a consumptive Patient
frequently turns — They should begin
by travelling a few Miles a day at
first ~~time~~ and increase the Distance
with their Strength — Stage Coach
-es are not convenient —

2 To Avoid travelling too soon in the
Morning or after Sun down the
Soonest a Patient breakfasts after he
leaves his Bed the better and in no

and in no case should he leave
his Morning Stage with an empty
Stomach. —

3. If the Patient lies down in the
Day time to sleep he should be
advised to undress himself, and
to cover his Body between Sheets
or blankets — a Person rests much
& more comfortably when dress
=ed & Socks Gaiters waistcoats
&c &c — Surveyors are sensible of
this who undress themselves even
when sleeping in the Wood) —
Never lie in damp Sheets.

4 Avoid all large Companies Espec=
=ally evening and Night Parties —

5 Avoid the Extremes of Heat & Cold

5 pass the Winter and part of the
Spring in Georgia or S. Carolina
the Summer in N. Hampshire
Massachusetts or Vermont or
along the Shores of the St Lawrence
to the City of Quebec — The
Autumnal Months in New Jersey
or Pennsylvania — in this Journ
-ey he should keep at a distance
from the Sea Coast —

6 To render travelling on horseback
effectual in a Consumption it
should be continued with Moderate
intervals from Six to twelve Months.
but the cure should not be rested
on a Single Journey. It should be
repeated every two or three Years

tile our Patient has passed the con-
=sumptive Stages of Life. — May
he must do anon; he must acquire
a habit of riding constantly — both
at Home and abroad; or to use the
Words of Dr Fuller
"He must like a Tartar, learn
to live on Horseback by which
means he will acquire in time
the Constitution of a Tartar. —
When Persons expect to derive
benefit from a change of Climate
a residence of two Years at least
is necessary in the place chosen
for the purpose. —
If Possible a Physician should
accompany the Patient. —

The following Circumstances and Symp-
toms indicate the longer or shorter
Duration of this disease, and
its issue in Life or Death.—
The Consumption from Gout,
Rheumatism and Scrofula, is
generally of long duration.— It
is more rapid in its Progress when
it arises from a half cured Pleurisy
or Neglected Cold, Measles & Influenza
it is of shorter duration in Persons
under thirty, than in those who
are more advanced in Life.—
It is always dangerous in proportion
to the length of time, in which the
debilitating Causes that predisposed
to it, have acted upon the Body.

It is more dangerous when a Predisposition to it has been derived from ancestors than when it has been acquired —

It is generally when accompanied with a bad conformation of the Breast —

Chilly fits in the forenoon are more favorable than when they occur in the Evening. — They indicate the Disease to partake a little of the Natum I am intermittent, and are a Call for the use of the Remedies proper in that Disease —

Rheumatic Pains attended with an abatement of the Cough, or pains in the Breast are always favorable

to an
Eruptions - or an Abcess on the
External parts of the Body, if
they occur before the last Stage
of the Disease. —

a Spitting of Blood, in the early, or formin
Stage of the Disease, is favorable
but after the Lungs become much
obstructed, or ulcerated, it is Most
Commonly fatal. —

A Pleurisy occurring in a low State
of this Disease generally Kills.
of Pleurisy.
I have seen a case which came
nigh curing the Disease

The Discharge of Calculi from the Lungs
by Coughing and Spitting — and a
thin watery Liquid with a small
Portion of Pus swimming on its Surface —

are unfavorable Signs — ~~It~~
No Prediction unfavorable to Life
can be drawn from Pus being
discharged from the Lungs. —
a Sudden cessation of Cough without
a Supervening diarrhea, indicates
death to be at hand. —
A constant Vomiting in Consumptions
is generally a bad Sign —
Cold feet & swelling of ~~F~~face & feet
indicate a speedy and fatal issue
Lice & the falling off of the hair
often precede Death. —
a hoarseness in the beginning of
the Disease is always alarming
but it is more so in last Stage —

a Change of the Eyes from a blue
or dark to a light Colour, Simila
to that which takes place in very
old People, is a sign of Speedy
dissolution. —

I never saw a Recovery after an
Aphthous throat took place —
Death from Consumption comes in Some or more than one
of the following ways
1st With a diarrhoea — with Absence
of Night Sweats —
2. a Rupture of an Abscess —
3. a Rupture of a large blood
Vessel in the Lungs attended
with external or internal
Haemorrhage —

Sudden & unexpected Death
in a Consumption is generally indu
by this or the preceding Cause —

5 Madness - the Cough & Expectoration
Cease with this disease. it genually
carries off the Patient in a week or
ten days. —

6. & Pleurisy, brought on by
exposure to Cold. —

7 a Typhus fever, attended with
tremors, twitchings of the Tendons
and a dry Tongue —

8. Swelled hands, feet, legs thighs
and face

9 an apthous Sore Throats —

10 Great & tormenting Pains sometimes
of a Spasmodic Nature in the Limbs

Error Loci Dr Rush observes that
He seldom prescribes for a chronic disease
of any kind without enforcing the prosperity

A taking food in Small Quantities and frequently. — a less Stimulus is by this means communicated to the System ~~and less~~ and less Chyle is mixed with the Blood in a given time. —

Dr R thinks the Consumption is a primary Disease of the whole System

1. From the cause producing it acting upon the whole System —

2 From the Symptoms of general debility which always precede the affection of the Lungs — These Symptoms are a quick pulse especially towards Evening, a heat and burning in the Palms of the hands Faintness, head ach — Sickness at Stomach and an occasional Diarrhoea — I have frequently observed each of these Symptoms for Several Months before I have heard of a single complaint in the Breast. —

3 From the pulmonary Consumption
alternating with other diseases which
obviously belong to the whole System.
I shall mention those —

1 Rheumatism — Patients have been
relieved of a Cough by Rheumatic Pains
in Limbs as to promise a cure to after=
=more in affection —

2 Gout — 3 Madness it suspends
the Disease during the Derangement
but soon proves fatal —

Headach & Dyspepsia also pain
and Worms in the Ear.

Eruptions on the Skin.

Cepation of a Diarhoea or pain in y^e
bowells —

The Exercise which requires the most use
of the arms is best — hence Riding on
horse back — A Gentlm in Pennsylvania
cured himself by gently rowing in a small
Boat daily & A Physician in the Co. Indiana cured
his Patients by rubbing their arms with liniment

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11.
1.50
1.50
1.50
1-
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27-
2.
26-50

$78=25

20-

58.25
4.16

$54:09

5.83

48:26

25
6-3

31-3

3-½

25.

25-½

2

25 3½

25.
12-6
6.3

43:9

5-83

37.6

6:3

Dropsies

He says the power of the exhalents and absorbents is materially affected by too much or too little action in the arterial System. —

in the arteries
too little action he says has long been observed to favor dropsical effusions; but it has been less obvious that the same effusions are sometimes promoted, and their absorption prevented, by too much action in these Vessels. That this fact should have escaped our notice is the more remarkable, considering how long we have been accustomed to seeing serous swellings in the joints in the acute Rheumatism and Cophosis, but partial effusions of water in the form of sweat, in every species of inflammatory fever. —

Dr. R. says that ~~predisposing~~ debility predisposes to dropsy and is followed by excessive or irregular Action in the Arterial System in certain dropsies — and says that

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inflammatory fever, active hemorrhages, tonic Gout, asthma, Apoplexy, Palsy however much they are accompanied by excessive action in the arterial System are always preceded by organic Debility, and are always accompanied by obvious debility in every other part of the System. — Lent it has been observed by Physicians that an undue flow or excess of action occurs in the arterial System in certain dropsies, and that the same theory which explains the Union of predisposing and remote general debility, with a partial excitement and preternatural action in the arterial System in the diseases before mentioned, will explain the Symptoms & Cure of certain dropsies. — D

The Symptoms which indicate a morbid excitement

and preternatural action of the arterial
System — These are —

1, A hard, full, and quick pulse.
This Symptom I believe is more common
in dropsies than is generally supposed
for many Physicians visit and examine
Patients in these Diseases without
feeling the pulse. —

Diopsies —

Remedies — I Bleeding — II Vomits

III Purges — Jalap & Calomel, Gamboge

He mentions two cases of ascites

being cured by a table Spoonful

of sweet oil taken every day. —

It probably acted only as a gentle

laxative —

IV Certain Medicines, which by

lessening the action of the arterial

System, favor the absorption and

evacuation of Water. — Those Medicines

are Nitre Cream of Tartar and

Gamboge. —

1. Two Ounces of Nitre dissolved in

in a pint of Water, and a Wine
Glass full of it taken three time
a day have performed perfect Cures
in two cases of ascites, which have
come under my Notice — he cured
two
Cases of anasarca by giving a
Scruple of Nitre three times a day
for Several Weeks — the two last
cases were evidently dropsies of
Violent Action in the Arterial
System — When Nitre has been
given in atonic dropsies it has
generally been useless, and Some=
=times done harm — I have seen
one instance of an immoder-

diarhoea after tasting which I
suspected arose from the destruction
of the tone of the Stomach and bowels
by large & long continued doses of
Steel, which the Patient had
previously taken by the advice
of a person who had been cured
by that remedy. — To avoid this
or any other inconvenience from
giving Steel in Dyspepsia it should
be given at first in small Doses
and should always be ~~always~~
laid aside if it should prove insuffi=
=cient after having been given two
or three Weeks. —
Neither Cream Tartar or Pox Glove
does he applaud much —

V Hard labor or exercise in such a degree as to produce fatigue have in Several instances cured the dropsy.— and mentions a case Cure being performed by the Persons Sawing Wood.—

VI Low diet. He mentions one instance of a woman who was cured of a Dropsy by eating Nothing but boiled beans for three weeks and drinking Nothing but the Water in which they had been boiled.—

VII This Cruel Remedy acts by debilitating the System in two ways
1 By abstracting the Stimulus of Nutrition
2. By preventing a Supply of Fresh Water to

replace that which is discharged by
the ordinary emunctories of Nature.

VIII Fasting — Dr Johnson was
cured by it of a Dropsy. and Dr R says
reading the Acct of this cure first led him from an Empirical
Practice to correct principles in treating this Disease.
Dr R. says according to the theory he was endeavoring to establish.
he recommended to a
Woman in one case with Amenorhœa
Incubus — he says he was delighted
with the effects of it. Her Urine
which for some time before had
not exceeded half a pint a day
amounted to two quarts on the
day she fasted — He repeated the
same prescription once a week
for several Weeks and each time
was informed of an increase of
Urine — thought it was considerably less
in the last Experiment than the first.

IX Fear — I think I once saw a Case cured by this Remedy —

X a recumbent posture when the Disease is in the lower Limbs, he says he has often seen with great pleasure the happiest effects from this prescription in a few days. —

XI Punctures. he says he has never seen a Mortification produced by them —

Atonic Dropsies —

Or such as are accompanied with a feeble Morbid Action in the Blood Vessels — These Atonic or typhus Dropsies may easily be distinguished from those which have been described by occurring in habits naturally weak

by being produced by the Operation of
Chronic Causes; by a weak and quick
pulse, and by little or no preter-
-natural heat or thirst. —

The Remedies for atonic Dispepsies are
all such Stimulating Substances as
increase the action of the Arterial
System, or determine the fluid to
the urinary organs. These are —

I Bitter and aromatic Substances
of all Kinds exhibited in Substance
or in infusions of Wine, Spirit, Beer
or Water. —

II Certain Acid Vegetables — such
as Sorrel Grass, horse Radish,
Mustard, Water Cresses, and Garlic.
water Cresses or bread & butter.

III Opium — recommended by Dr Willis

IV Metallic Tonics, — Mercury to excite Salivation — Dr R says I have it is true, often given it with = out effect, probably from my former ignorance of the Violent action of the Arteries, which so frequently occurs in Dropsies, and in which Cases Mercury must necessarily have done harm —

V Diuretics — Nitre, alkaline Salts and the oxymel & Squills and Colchicum. —

VI Generous Diet — Animal food rendered cordial by Spices — also sound old Wine. —

VII large draughts of Water and Cyder & Water agreeably to Sir Geo Baker— "When common Means have failed, Success has sometimes followed a Method directly contrary to the established practice.—

VIII Prepare—Bandages upon the Body and Limbs— Frictions either by means of a dry or oiled hand, or with linen or flannel impregnated with Oil Volatile or other Stimulating Substances he says he has found evident advantages from following Dr. Cullen in this respect.

IX Patients— Rubbing especially in the lower Extremeties, and that only in the Morning.—

X Heat— Warm fomentations to the feet & Legs rendered Stimulating by Saline Substances.— Dampier in his Voyage round the World was cured by burying himself in a bed of Warm Sand.—

~~X~~ I The Cold Bath.

X II Wounds – as in the Case of Hydrocele by means of the Needle or Caustic. –

X III Exercise – XIV a recumbent Posture – during the intervals of Exercise – Exercise the Dr says is as necessary in Atonic dropsy as in Consumption and P should never be omitted, when a patient is able to take it

XV Punctures in the Legs and feet afford the same Relief in general dropsy, – accompanied with a weak action in the blood Vessels that has been ascribed to them in dropsies of an Opposite Character. –

In the application of each of the remedies which have been Mentioned for the Cure of both tonic and atonic dropsies, great Care should be taken

* The papers Exercise of Swinging & riding in a Carriage are most proper in the lowest Stage of this Disease but as for

to use them in such a Manner, as
to accomodate them to the Strength
and Excitability of the Patients
System — The most powerful
remedies have often been rendered
hurtful, by being given in too large
doses in the beginning and useless
by being given in too small doses
in the Subsequent Stages of the Disease.

He mentions cases of Dropsy of a
Mixed action, where too much
force prevails in the action of some
and too little in the action of other
of the arterial fibres — the remedies
must be debilitating or Stimulating
according to the greater or less pre-
-dominance of tonic or atonic
Diathesis in the Arterial System. —

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the Patient should ride on horseback,
a journey pursued & shall excursions at home.

he calls this mixed action typhoid.—

From the influence which has been described
of the different states of action of the arterial
system, upon the lymphatic vessels, in
dropsies we are led to reject the indis=
=criminate use of Bark, Mercury
and Salt Water, in the Scrophula.
When the action of the arteries is weak
those remedies are proper.— but when
an opposite State of the arterial System
occurs, and above all, when Scrophulous
tumours are attended with inflammatory
Ulcers, stimulating Medicines of all
Kinds are hurtful. by alternating
the above remedies with a Milk and
Vegetable Diet, according to the tonic
or atonic State of the ~~System~~ arterial
System, I have succeeded in the cure

of a case of Scrophula attended by large Ulcers in the inguinal glands which had for Several Years resisted the Constant use of the three Stimu=
=lating Remedies which have been Mentioned. —

He says he believes dropsy may Sometimes exist from an exclusive affection of the exhaling and absorbing Vessels —

Internal Dropsy of the Brain

General Proposition. 1. It is a Disease Confined chiefly to Children. —

2. In Children the Brain is larger in proportion to other parts of the body than it is in Adults; and of course a greater proportion of blood is sent to

it in Childhood, than in the subsequent periods of Life. The effects of this determination of blood to the brain appear in the mucous discharge from the nose, and in the Sores on the head and behind the ears which are so common in childhood. —

3. In all febrile Diseases there is a preternatural determination of Blood to the brain — particularly in Children — hence Convulsions in the eruptive fever of Small pox — dentition &c. — worms & first paroxysm of intermittents. —

4 In all fevers there is a disposition

to effusion in that part to which there
is the greatest determination. —

In general the Patient at first is
lazy and inactive, often drowsy and
peevish, at intervals cheerful and appa-
=rently free from complaint. —
The Appetite is weak, a Nausea &
in many cases a Vomiting occurs
once or twice a Day, the Skin is
observed to be hot and dry towards
the Evenings, soon after the Patient
is seized with a sharp head Ach
in the fore part if not there, generally
in the Crown of the head: — the
head Ach alternates with the affection
of the Stomach — pain sometimes in-
of Entrails & bowells but more con-
=stantly the back of the Neck and

between the Scapula in all such
Cases the head is more free from
uneasiness —
The Patient dislikes the light at this
period; cries much, sleeps little,
and when he does sleep, he grinds
his teeth; picks his nose, appears
to be uneasy, and starts a few
Screamings as if terrified the bowells
are in the Majority of Cases very
much confined — though it some-
-times happens that they are in
the opposite State — the pulse as
usually
yet does not indicate any material
derangement. after the Disease has
continued a few days with the symp-
-toms above mentioned Subjects as

they always are in this disease to great fluctuation, the axis of one Eye is generally found to be turned in towards the Nose; the pupil on this Side is rather more dilated than on the other; and when both have the axes directed inwards (which sometimes happens) both pupils are larger than they are observed to be in the Eyes of healthy persons; the Vomiting becomes more constant and the head ach more severe = =ating; every Symptom of fever then makes its appearance, the pulse is frequent and the breathing quick; Exacerbations take place toward Evening, and the face is occasionally

flushed usually one Cheek is much more affected than the other — tempo = rary perspirations likewise break forth, which are not followed by an alleviation of distress; a discharge of Blood from the Nose which sometimes appears about this period is equally inefficacious. —

Delirium and that of the most Violent Kind particularly if the Patient has arrived at the Age of *Puberty *14 years old in boys & 12 in girls — now takes place, and with all the preceding Symptoms & Fever, continues for a while to ~~increase~~ increase, until about fourteen days often a much shorter

Space of time, shall have elapsed
Since the appearance of the
Symptoms which were first men
=tioned in the above detail—
The Delirium then undergoes that
remarkable change, which sometimes
Suddenly points out the commencement
of what has been called its Second Stage.
the pulse becomes Slow but unequal
both as to its Strength and the intervals
between the pulsations; the pain of
the head or of whatever part had been
previously affected seems to abate,
or at least the patient becomes
apparently less sensible of it; the
interrupted Slumbers, or perpetual rest=
=lessness which prevailed during the
earlier periods of the Disorder are now

Succeeded by an almost Lethargic torpor, the Scabrimus & dilatation of the pupil increase, the Patient lies with one, or both Eyes half closed which when minutely ex= =amined are completely insen= =sible to light - The Vomiting ceases whatever food or Medicines offered is usually swallowed with ap= =parent Voracity; the bowels at this period generally Remain obstinately costive.——

If no relief is yet obtained the Symptoms of the second Stage are succeeded by others, which more certainly announce the approach of Death. The pulse again

becomes equal, but so weak and
quick that it is almost impossible
to count it; a difficulty of breathing
Nearly resembling the Stertorous apoplec-
-tous is often observed, Sometimes the
Eyes are suffused with blood, the
flushing of the face is more frequent
than before, but of shorter duration
and followed by a deadly paleness-
-ted spots or blotches sometimes ap-
-pear on the body and Limbs-
deglutition becomes difficult and
Convulsions generally close the Scene.
These are the common Symptoms
of the Disease but it often assumes
a great Variety & others — & Dr
Quin says a truly proteiform Nature

Dr R. says he has not found the dilated and insensible pupil, the pulse, the delirium, or the Strabismus, to attend universally in this Disease. — The appetite is sometimes unimpaired — sometimes attended with blindness and by Double Vision. — Hearing sometimes very Acute — sometimes terminates in Hemiplegia — Dr R says he met with one case in which no preternatural Slowness or intermission was ever perceived in the pulse. — I saw it once in a Child of Six weeks old the Disease occurs in Children of nearly all ages — It sometimes terminates in Sudden death Dr Stoll calls ~~it~~ this form of it "the apoplexia infantalis"

It is produced by -

1 Intermitting, remitting and continued fevers -

2 Rheumatism - 3 Pulmonary Consumption -

4 Eruptive fevers -

5 Worms - Notwithstanding the discharge of worms gives no relief in this disease yet there is good reason to believe that it has in some instances been produced by them. -

6 - Colic, Palsy, melancholy, dyspepsy, dentition, insolation, and Scrofula, also the Sudden healing of old Sores - the Vernal Sun -

Remedies

1. Bloodletting -

1 Case - Child 15th Nov. of 4 years - old a female

1st Visit -, " VS ad 3 ounces - next day Jalap & calomel - 18th Nov. VS 4 ounces recovered - this ~~was~~ case was brought on by a fall on the head about Seven weeks before the Dr saw her - this was a case occasioned by a fall on the head. -

II Purges III Blisters - IV Mercury - he is opposed to on account of its producing gangrene in the tender Jaws of Children

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V Linen Cloths wetted with cold Vinegar
or Water and applied to the forehead—
or Vinjar or Vinegar in which ice has been dissolved.
A Puncture in the Brain has been
recommend by some but not
approved of generally—Local bleeding
Leeches Cups &c—
Bark, Wine & Opium in the last Stage
altho he says he has found little
benefit from them in his practice

Gout—

The Symptoms of an approaching fit of
the Gout are great langour and dulness
of Body and Mind—drowsiness, giddiness,
wakefulness, or sleep disturbed by
Vivid dreams, a dryness, and sometimes
a coldness, Numbness and prickling
in the feet and Legs, a disagreeable
of Pimples in the face, occasional chills
acidity and flatulency in the Stomach

turn over to Page 7—

Exer Loci ∃ 1. The Gout is a Disease

of the whole System — it affects the Ligaments,
bloodvessels, Stomach, bowells, brain, Liver,
lymphatics, Nerves, Muscles, cartilages,
bones and Skin. —

2. It is a primary Disease only of the
Solids.

3 It is more apt to affect Sanguineous
temperament but sometimes affects
persons of nervous and phlegmatic
~~temperaments~~. —

4 It is one respect hereditary — depending
upon the propagation of a similar tem=
=perament from father to Son. —

5 The Gout is always induced by pre=
=disposing debility —

6 The remote causes are — indolence,
great bodily labor, long protracted

bodily exercise, intemperance in eating
Venery Acid aliments and drinks
strong tea & Coffee, public and
domestic Vexation — the Violent
or long continued exercise of the
Understanding — imagination and
passions in Study, business and
pleasure, and lately the use of
ardent & fermented Spirits —

Exciting Causes — Either stimulants
or Sedatives — of the former and
Violent exercise, of body or Mind —
Night Watching, and even sitting
up late at Night, a hearty Meal,
a fit of drunkenness, a few glasses
of Wine when these Liquors have not
been habitual. —

a Sudden paroxysm of Joy, Anger &c-

Of the Sedative Causes - Inanition from
bleeding Purging, Vomiting, Fasting
Cold - Cold feet &c

I The Gout consists Simply in Morbid
excitement accompanied with irre=
=gular action, or the absence of
action from the loss of Stimulus -
there is Nothing Specific in the
Morbid excitement & actions which
take place in Gout different from
what occur in fevers -

Symptoms

1. The Ligaments which connect the
bones on the seats of what is called
a legitimate or true Gout - he makes
Rheumatism & Gout as nearly allied as
bilious Remittent & Yellow fever - diff Grades
of same disease. -

III The Gout affects most of the Viscera — in the brain it produces Vertigo, Coma, Apoplexy &c — in the Lungs Pneumonia Notha, Asthma, a Short hacking Cough &c —

IV The Gout sometimes affects arterial & nervous Systems jointly pro= =ducing in the brain, Coma, Vertigo, &c —

The Angina Pectoris is sometimes a Symptom of the Gout — there is a pain which suddenly pervades the head, breast and Limbs which resembles an Electric shock —

V The Gout affects the Alimentary Canal from the Stomach to its termination in the Rectum —

VI The Gout affects the Glands & Lymphatics Inde &c Buboes &c —

VII affects the Skin, Ears &c VIII The Bones — the acute pains in the face probably proceed from this cause according to Dr Pothergill —

with an increased, a weak, or a defect of
appetite. The Chemists have discovered
another Symptom of an approaching fit
of the Gout, and that is, the presence of
the Phosphoric acid in the Urine.—
The very sweat they say of gouty Patients
tinge the Linens of Scarlet of a red color
from the superabundance of this acid in
them.— a fit Dr. K. says the Leader
will see at once the Similarity in a fit of
the gout to the Paroxysm of fever from
Cold and Miasmata.— the System
during the existence of these Symptoms
is in a State of morbid depression— the
Disease is as yet unformed and may easily
be prevented by the loss of a few ounces
of blood. or if this Remedy be objected
to by a gentle dose of Physic, and afterwards

by bathing the feet in warm water
by a few drops of Laudanum in a
little Sage Tea or Camomile Tea- by
a draught of Wine whey or a common
dose of Liquid Laudanum and according
to a late Portugese Physicians by taking
a few doses of Bark.

It is worthy of Notice, that if these
remedies are omitted, all the premonitory
Symptoms that have been mentioned
disappear as soon as the arthritic fever
is formed, just as Lafitau and Chalmers
yield to a Paroxysm of fever from other
Causes.—

Remedies proper in great morbid
Action in the blood vessels and Viscera—

1 Bloodletting— Col: Miles owes his Life
to the loss of 60 ounces of Blood in an
attack of the Gout in his bowels, in

the Winter of 1795, and Major Butler
derived the same benefit from the loss
of near 30 ounces in an attack of
the gout in his stomach — Cupping in
Gout in the Head —
Sir Henry Conneysby was bled during
his old age Every three months —

Bleeding is required as much in its
depressed as in its full and chorded
State — Colonel Mills' pulse at the
time he suffered from the gout in the
Bowells was scarcely perceptable —
It did not rise till after a second or
third Bleeding. —

2 Purges — Castor oil, Sulphur, Cream
of Tartar, Sena, Jalap, Rhubarb and
Calomel — Salts improper (they once
brought on a fit of the gout in D. Brown.
Salts are only improper as they are
offensive to the Stomach. —

3 Vomits — 4th Ether may be given
when the Stomach is not affected —
5th Cool or Cold Air — the affected
Limbs Should be kept out of Bed
uncovered. Even Cold water has
been applied with good effects to
a Limb inflamed by the Gout. —
Blair McClenachan always used it
with great Relief — Dr R. however
does not advise it to Person who had
previously been affected with gout in
the Stomach, bowels, Breast or Brain
6 Diluting Liquors
7 Abstinence from Wine, Spirits and
Malt Liquors. Sago Panada, tapioca
deluted Milk with Cocoa; and the Pulp
of apples, Summer fruits, tea, Coffee

& Blisters are invaluable - should be
applied to the joints of the feet and wrists
in general gout, and to the neck and
sides, when it attacks the head and
breast - a strong is no objection as
Drs Clark & Wright inform us they remove
it - but should not be used till after the reduction
of morbid action. —
Q Dean & Senec - have cured a paroxysm
of this disease —

Sweating - the only sudorific medicine
to be trusted in this state of the disease
is the Seneca Snake Root - It promotes
all the secretions and excretions, and
exerts but a feeble stimulus upon
the Arterial System. —

Opium is hurtful till the morbid
action of the system is reduced —

Dr Chalmers used to meet the pain of
Gout in the limbs with Blisters — & generally
removed it - Moxa - Caustics to the Neck
in torner —

Dr. R Says he has used a cabbage Leaf to the pained parts with great advantage — all Volatile & Stimulating Liniment improper — the Patient should exercise his lower Limbs by walking after a fit of the Gout as soon as possible —

III Remedies for a feeble morbid Action — If the pulse do not indicate Bleeding but is weak quick and soft, the remedies should be such as are calculated to produce a more vigorous and equable action in the blood vessels and Viscera. —

They are 1st

Opium — It should at first be given in small doses —

2nd Madeira or Sherry Wine — alone or diluted with water —

3d Porter — it checks vomiting —

4 Ardent Spirits — Gog — a Pint of Brandy has sometimes been taken

in the Course of an hour with advantage

*Dr Warners Tincture 1/4 Table spoonful
to be taken every hour mixed with an equal quantity
of water until Relief be obtained — Ten drops of Laud.m to each Dose
3 Ether — 6 Vol: alk: 7 Aromatic

Substances —

8 Oil of Amber — 9 Bark (Where the Monarch will bear it Especially
10th The Warm bath where the Gout appears in the form of
11th A Salivation — it arises from an intermittent. It is equally efficacious as when it arises from autumnal Intermittents
as Speedily as possible — may be excited

*Dr Warners Tincture 1/4 Table Spoon
full to be taken every hour mixed
with an equal quantity of water
until Relief be obtained — Ten drops
of Laudanum may be added to
each Dose in those cases in which
the Cordial does not produce its in=
=tended effects — in two or three hours

the next Remedy is Ether —
NB — Ens Loci — An old Sea Captain taught
Dr R to apply Molasses to an inflamed
Limb with advantage — a Cabbage Leaf —
is often very useful —

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12. Fuctions with Brandy and Volatile
Liniment should be used to the
Stomach & Bowells — Glow &
Mustard to the feet &c — it should
be applied to the upper part of the
foot — IV Remedies for local Symptoms of Gout.
The head-ach — cured by an issue
in the arm — Sleeping with or without
Night Caps according to Morbid Action
in weak Morbid Action — Tonics &c
and Cold Bath — Dr K. says he
once cured a chronic gouty pain
in the head by an issue in the arm
after pounds of Bark and many other
tonic remedies, had been taken to no
purpose: —

Dull but constant pains in the limbs
yield to fuctions, Volatile liniments,
Muslin & Woolen worn next the Skin
Electricity, Salivation, the warm Foot Bath.

Cotton Mats – or Wool – finely carded
rubbing the limbs with Castor oil
and wrapping them up in hot sand
have likewise been useful –

Dr Pleasants Remedy – Four one to four
teaspoonfuls of the fine Spirits of
Turpentine every Morning for a
week or ten days – in three times the
quantity of honey with an anodyne
at Night. –

A Gouty Diarrhœa – Should be treated
with the usual astringents. –

Angina Pectoris – generally comes on
with fulness, and tension in the pulse
after these Symptoms are reduced by
two or three bleedings – Mineral Tonics
seldom fail of giving relief. –

Spasms in the Stomach and pains in
the Bowells - ten drops of Laudanum
every half hour till relief is obtaind
Dr R says this has been his constant
Prescription - these pains often seize
People Subject to Gout in the Bowels
of business or Pleasure or in the
Middle of the Night. - It
Dr R says the Laudanum is pre=
=ferable to Spiced wine, Spirits &c -

Pain in the Rectum - Cold water
relieves immediately as in the piles.

For a preternatural Secretion and
Excretion of bile gentle Laxatives
and abstinence from oily food, full
Meals and all Violent Exercise
of the body and Mind

Itching in the Anus - Mercurial
Ointment -
Itching in the Vagina - Solution of
Sugar of Lead -
Cutaneous eruptions - gentle Physic
Suitable diet, ipecac, and applications
of the Argentum Citrinum. —
The Arthritic Gonorhea as in
other cases -
Care should be taken to enquire
before curing these local complaints
wether the System has not thereby
been relieved from its effects in parts
essential to Life — and thereby avoid
the danger of exchanging a local
for a general disease — he does not
admit of the seeds of the Gout remaining

in the body to be eliminated by
art after a complete termination
of one of its Paroxysms — a pre=
=disposition to the return of the
Gout only remains in the System —
from its usual remote and
exciting causes. — he rejects
Morbific Matter —

Abstinence, Pain, and Terror have
been the happy means of overcoming
a predisposition to the Gout —
a Sudden fright a remarkable
instance detailed by his Brother
Jacob Rush — A Reading

Remedies for obviating Gout arising
from Violent Action —
NB Gout differs from Rheumatism only
in its Seats and Grades.

Intemperance— A Diet of Milk, Vegetables 10
and Simple Water — Dr Lord Nelson
was cured by two years abstinence
from Wine and Animal Food, during
which time he lived wholly upon
Milk and Vegetables. — But in
general fish, Eggs, the white meats
and weak Broths may be taken
once a day— with Milk at other
times. — a little salted meat
Occasionally — as it affords less
Nourishment than fresh — a
little Madeira or good Wine —
bad or acid wine very injurious —
Small Beer Dr Sydenham drank
this — Strong tea and coffee should
not be tasted — when there is reason
to believe the habitual use of them
has contributed to bring on the Disease.

abstinence should ~~be avoided~~ be
attended to more particularly in
the Spring and fall as the Gout
is more liable to return at those
Seasons — it should be entered
upon too Suddenly by old Persons —
2 Moderate Labor and gentle Exercise
Walking &c —
3 Cold should be avoided carefully
wearing flannel in winter and
muslin in Summer — Cork
Shoes, Socks &c —
4 great Moderation in the exercise
of their Understandings & Passions
intense Study, any Joy fear &c has often
excited it — hence Generals &
Statesmen are so often afflicted
with the Gout — and often too in

moments the most critical and important to the welfare of a Nation a County Man Should always be in bed at an early hour according to Dr Lydenhamd. ——

6 Costiveness to be avoided - Sulphur is an excellent remedy for this purpose — Dr R passes high Encomiums upon Sulphur he thinks it has often kept off fits of the Gout —

Rhubarb — Losing a little Blood in the Spring & Fall —

II Remedies for Gout attended with feeble morbid action. — this State of Gout generally occurs in the Evening of Life and in Persons of delicate habits or in such as have had their constitutions worn

down by repeated attacks of
the disease —

The remedies to prevent it — are
1 a gently stimulating diet with
good sound old Madeira Wine
salted and smoked Meat &c —
Pickles & Vinegar should seldom
be tasted — eating small Meals
frequently —

2. The use of Chalybeate Medicines
preferable to bitters & other Tonics
Steel best

3 Vol Fonct. Gum Guiac: —
4 Warmth — 5 Warm bath in Winter
or temperate
and Cold bath in Summer —
6 Exercise — 7 Costiveness to be avoided
8 The Understanding & Passions Should
be constantly agreeably employed —
9 a Warm Climate — It is more
common in the female than in the Male
and that in the ratio of Ten to one —

Remedies 1 Bloodletting — The late Dr Bailie of N. York used to bleed tile fainting was induced his practice has been followed by Dr Deck of Alexandria — Dr R. says he has generally prefered Jenale & repeated bleedings to copious bleedings. —

Dr R says he once drew 12 ounces of Blood at 2d Bleeding, in one of his fevers at St. John's Comb — Calomel in his 4th year

2 Vomits — They should be given every day or oftener during the continuance of the Disease. —

3 Purges — as Calomel & Jalap and Should always follow the use of Emetics if they fail of Opening the bowels —

4 Calomel should be given in large Doses — Dr Physick gave half

a dram of this Medicine in one
day to the infant of three years
old with success—

Dr R says he once drew twelve
ounces of Blood at four bleedings
in one day from a Son of Mr
John Carol then in the fourth
Year of his age. ——

5. Blisters should be applied to the
throat, breast, and neck and
even to the limbs. ——

6. Dr Archer of Maryland commends
in high terms the use of Polygola
or Seneca Snake root— Dr R
says he cannot say much in
favor of it. ——

7 Warm Bath—

after Morbid action begins to decline
a few drops of Liquid Laudanum
to quiet the Cough — Flaxseed
and Onion Tea —

Dr Physick bled a Child of Lewis
three Months old three times in one
day. ——

Laryngotomy Hydrophobia —

In Diseases of the Throat which obstruct
Respiration Should be preferred to
tracheotomy and the incision Should be
Made in the triangular Space between
the thyroid and cricoid Cartilages. —

Esctracts James ~~H.cKnight~~ Esq.

Extracts from Chaptal.

May 20th 1800

On board the Frigate Philad.a

by Ben Chapman U.S.M.

Benjn Lumpkin D.

Extracts from Chaptal—

The Words Sulphates, Nitrates, Muriates, are used to denote Combinations of the Sulphuric, Nitric, & Muriatic Acids, the kind of combination is denoted by adding to the generic Word the Name of the body which is combined with the acid ——— ——— As the Sulphate of Pot Ash expresses the combination of the Sulphuric Acid with Pot Ash. The differences in Acids arise almost always from the greater or less Abundance of Oxigene — in the first case the Acid assumes the epithet of oxigenated hence the oxigenated Muriatic Acid. oxygen. Sulphur. Acid &c

In the second case, the termination of the Word which denotes the Acid, ends in ous hence the Sulphurous Acid, the Nitrous Acid &c. The Combinations of these last form Sulphites, Nitrites

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The Combinations of the former compose Oxigenated Muriates, oxigenated Sulphates &c.

Chemistry is a Science the object of which is to ascertain the Nature and properties of Bodies —

Two Methods are used to obtain this Knowledge — Analysis and Synthesis

The Operations of Chemistry are performed in a Laboratory —

Affinity of Bodies —

Affinity of Aggregation — Composition

Two principles united together and opposed by a third is an exam. of Simple affinity the Body engaged is the precipitate

Sulphur is placed among the Elements it is formed by the decomposition of Vegetables and animals — It has been found on the Walls of Necessary houses

Continued in Page

Concerning Fire.

Fire is the principal agent employ'd by Nature to balance the power and natural effect of Attraction —

There are 2 things to be considered in fire — heat and light. — which altho distinct in their own nature have often been confounded together. The Shock of two Flints the action of volcanoes meteors must have afforded the earliest idea of it. —

Concerning Caloric & Heat —

Caloric is contain'd in greater or less Quantities in bodies according to the greater or less degree of affinity existing between it and them. —

Various means may be employed to displace or disengage the Caloric. The first is by the method of affinities. for example, Water pour'd upon the Sulphuric acid expels the heat and takes its place. The 2nd is by friction & Compression. in this Case it is express'd or Squeezed out in the same manner as Water from a Sponge. —

Heat is sometimes disengaged in a State of simple Mixture as in the phenomena of Vapours, Sublimations &c

Page 5 — 1 principle

2nd " All Bodies which pass from a Solid or fluid State to the aeriform State, absorb heat which becomes latent; and it is by Virtue of this heat that

Such bodies are maintined & placed in that state. — on this ~~process~~ principle is founded the process used in China, India, Persia, & Egypt, to cool liquors ~~for~~ used for drink.

If evaporation be increas'd by ~~the~~ agitation of the air the refrigeration is the greater. — Hence, the use of fans, Ventilators &c. — which though intended to give motion to warm air, afford likewise the virtue of cooling by facilitating and favouring evaporation. — Warm and dry air is best suited to form a refreshing Current, because it is more calculated to dissolve and absorb humidity; moist air is less proper, because it is already saturated. — Hence, the necessity of frequently renewing the air to preserve the coolness of our apartments. —

We find that almost all fevers end in perspirations, which, beside the advantage of expelling the morbific Matter, possess likewise that of carrying off the matter of heat, and restoring the body to its common temperature. The Physician who is desirous of moderating the excess of heat in the body of a patient, ought to maintain the air in that disposition which is most suitable to his Views. —

The use of Volatile alkali is universally

turn over two leaves

1st Principle. 35

It is an incontrovertible principle that all bodies which pass from the solid to the liquid State, absorb heat, and retain it in so accurate a Combination as to afford no Sign of its presence. — the Heat is therefore fixed, neutralized or latent, Lt P6

It is well known that if the bale of a thermometer be wrapped in fine Linen and kept moist by sprinkling with ether, and the evaporation be facilitated by agitation in the air, the thermometer will descend to 0.

Dr Franklin has proved, in his own person that when the Body perspires strongly, it is less heated than surrounding bodies and that perspiration always produces a certain degree of Coldness - See his Letter to Dr Lind. —

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(Warm and dry (before mentioned) air is best suited to form a refreshing Current, because it is more calculated to dissolve and absorb humidity; moist air is less proper because it is already saturated

Hence the Necessity of frequently renewing the air to preserve the Coolness of our apartments.)

1st Principle

¶ 15 Every Body which passes from a Solid to a liquid state absorbs a portion of heat which is no longer sensible to the thermometer but exists in a true state of Combination

Mr Wilcke found a pound of Water, heated to the 60th degree of Reaumur upon a pound of Ice, the melted Mixture possessed the temperature of 0. 60 degrees of heat had therefore entered into Combination. ——

Cold is produced in the dissolution of
all the Chrystallized Salts.

Reaumur made a Series of very
interesting experiments on this subject
which Confirm those of Boyle.—
Fahrenheit caused the thermometer
to descend to 40 degrees, by melting
Ice by Strong nitrous Acid. But
the most astonishing experiments are
those made by Mr Thomas Beddoes
and Walker, Apothecary at Oxford.

The mixtures which produce the
greatest degree of Cold are: 1 Eleven
parts of Muriat of Ammon or Comma
Sal ammon. 10 parts of Nitrate of
potash or common Nitre, 16 parts of
Sulph Sod. or Glaubers Salt and 32
parts Water: the two first Salts should
be Dry and in powder — 2 The Nitric Acid

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Muriat of ammon. and Sulphat of
Lod. lowered the thermometer to 8° under
0. Mr Walker has frozen Mercury
without using either ice or snow. 1/2
P5 from beginning

acknowledged to be of use in burns tooth ach &c.
May not these effects be attributes to the
Volatility of this Substance, which quickly
combining with heat, carries it off, and
leaves an impression of Cold.— Ether is a Sov=
=reign Remedy for the Colic. Does not its
Virtue depend on the Same principles.

Concerning Light.—

The motion of light is so rapid, that it passes
through nearly eighty thousand leagues in a
second.— Vegetation cannot take place
without light.— Plants deprived of this fluid
become pale— and when in hot houses the
light comes to them from one part only
the Vegetables incline towards the aperture.
as if to shew the necessity of this beneficial
fluid— Vegetables are not only indebted to the
light for their colour, but likewise for their
Smell, taste, Combustibility, Maturity, &
the Resinous principle, which equally
depend upon this fluid. M^r Donthes
has observed, Worms, Grubs &c which live
in the earth are white—

A very astonishing property of light upon
the Vegetable kingdom is that when Vegetables
are exposed to open day light, or to the Suns rays
they emit Vital air.

The fine experiments of Scheele & Berthollet have shewn that the absence or presence of light has an astonishing effect upon the result of chemical experiments.—
Light disengages Vital air from several fluids, such as the Nitric acid, the oxigenated Marine acid &c. Organization, Sensation, Spontaneous Motion, and life, exist only at the surface of the earth, and in places exposed to light: — Without light, nature was lifeless, inanimate, and dead: —

Note. If 1/3 pt. of Charcoal & 2/3 of Sulphat: Potash or Vitriolat: Tartar be mixed and fused in a Crucible the product is Hepar Sulphuris or Sulphat: of Potash. "Whence" says Stahl "the Sulphur is a Combination of Phlogiston or the inflammable principle of the Charcoal with the Sulphuric acid —" which Conclusion was

maccenate — —

Mr Deyeux proved, that Sulphur exists
Naturally in certain plants & fruits
as Patientia, Cochlearia, —
It is formed into flowers by sublimin
it with a gentle heat —

It is brot. to us from France & other places
in Tolls which are Moulded —
Stahl first observed that Oil of Vitriol &
Carbone or pure Charcoal — it exists
ready formed in Vegetables — it exists
likewise in the Animal Kingdom —
it is found in Plumbago —
It has not been procurable by decomposition
Concerning Gases
To reduce any Substance to the State
Caloric must be applied —

All Bodies Solid or liquid when they become
to be Volatilized by heat, appear in
two States — that of Vapour, or that
of Gas. In the first case these Substances
keep in a short time the Caloric which
raised them — and again appear in their
Original form the Moment the Caloric

4.

Finds Water Bodies to condense with
Her first state is that of Vapour
When the Combination of Caloric with
the volatalized Substance is such that a Gas is produced
The ordinary temperature of the
Atmosphere is not sufficient
to overcome it

* Hydrogen Gas or inflammable
Air — it is one of the constituent
parts of Water — it has a very
offensive smell — is not proper for
respiration — the purest is formed
by pouring the Sulphuric Acid
on Iron or Zinc the Water which serves as a Vehicle
it does not burn but by the concurrence of
alone — it is lighter than common
Air — its property of burning with
Vital Air has caused it to be called
inflammable Air —

* Respecting this
last named it should
be distinguished by
the name of inflam-
mable Air.

The Theory of Balloons, or aerostatic Machines is founded on this levity of the hydrogenous Gas.— in order that a balloon may rise in the Atmosphere it is sufficient that the weight of the Balloon and the Air it encloses should be less considerable than that of an equal Bulk of Atmospheric Air— And it must rise till its weight is in equilibrio with an equal Volume of the Surrounding Air— It possesses the property of dissolving Sulphur in this Case it contracts a Stinking Smell and forms hepatic Gas.

The Air which burns at the Surface of certain Springs and forms what is known by the Name of burning Springs consists of hydrogen Gas holding Phosphorus in Solution—

Scheele has taught us the means of obtaining this Gas in great abundance by decomposing artificial pyrites or Sulphure of Iron— formed by Three parts of Iron and one of Sulphur to which Spirit of Vitriol is added.—

Oxigenous Gas or Vital Air —

This was discovered by the celebrated Priestly 1st of August 1774 — All Acids have Vital Air for their Base —

Priestly, Ingenhouz, and Sennebier discovered nearly at the same time. that Vegetables exposed to the light of the Sun emit Vital Air. and that the emission is proportioned to the Vigour of the plant and the Vivacity of the light. in order to procure the Vital Air which is disengaged from plants inclose them beneath a glass Vessell filled with Water and inverted over a tub filled with the same fluid — The Moment the plant is acted upon by the Sun small bubbles are formed on its leaves which detaching themselves

rise to the upper part of the Vessel and displace the liquid — This decrease of Vital Air is a beneficial Gift of Nature to Vegetable necessarily the consumption of Vital Air — The plant absorbs Atmospherical Mephitis and emits Vital Air — Men on the contrary is kept alive by vital Air, and emits much Mephitis

NB. The distillation of 2 Os precipitate 1 Oz will afford 1 lb Oxygenous gas obtained from Mercurial Oxide always holds a small quantity of Mercury in solution & has produced a Speedy Salivation on persons who have used it for disorders in the Lungs —

It is the only fluid proper for Combustion —

1st Principle — Combustion never takes place without Vital Air —

2nd In every Combustion there is an Absorption of Vital Air —

3rd There is an Augmentation of weight in the products of Combustion equal to the weight of the Vital Air absorbed ——

4th: In all combustion there is a disengagement of heat and light -

1. Heat is most eminently resident in the oxygenous Gas which Maintains Combustion

2. The more oxigene that is absorbed in a given time the stronger will be the heat.

3. The only Method of producing a violent heat consists in burning bodies in the purest Air -

4. The fire and heat must be more intense in proportion as the Air is more condens

5. That Currents of Air are Necessary to maintain and expedite Combustion.

It is the only Gas proper for Respiration. All Animals do not require the same purity of Air for respiration - Even those that hide themselves in the earth. &c Insects &c.

Animals live longer in Vital Air than Atmospheric according to the experiments of Count Morozzo.

Changes of

~~Effergent~~ Oxigene gas by Respiration

1. In the air.— 2. In the blood.—

The gas emitted by expiration is a mixture of Nitrogene gas, Carbonic acid, and Vital air—

If the air which issues from the Lungs be made to pass through lime Water it renders it turbid; if it be received thro' Tincture of turnsole it reddens it—

and, if a pure alkali be substituted instead of the Tincture of turnsole, it becomes effervescent.

II Its first effect on the blood is that of giving it a Vermillion colour. —

The second effect of Respiration is to establish a real focus of heat in the lungs;

The heat in each class of individual animals is proportioned to the Magnitude of the Lungs according to Buffon and Broussonet.

Animals with cold blood have only one Auricle and one Ventricle —

Persons who have respired Vital air, agree in affirming that they perceived a gentle heat vivifying the Lungs, and insensibly extending

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from the breast into all the other parts of the body. Ancient and Modern facts prove that a focus of heat exists in the lungs and that is maintained and kept up by the air of Respiration. There is an absorption of Vital air in Respiration. Respiration is an Operation by means of which Vital Air passes continually from the gaseous to the concrete State. it must therefore at each instant abandon the heat which held it in Solution and in the State of gas. The heat produced at each inspiration must be proportioned to the volume of the lungs. to the activity of this organ, to the quality of the air, the Rapidity of the inspir= =ation &c. Hence it follows that, during the Winter, the heat produced must be mo= considerable, because the air is more con= =densed, and exhibits more Vital Air under the same Volume. The Lungs of asthmatic persons are less capable of digesting the air -

and I am assured that they emit the Air without vitiating from which cause their complexion is cold and their Lungs continually languishing from these prin=
=ciples it may easily be conceived why the heat of Animals is proportioned to their ~~Lungs~~ Volume of the Lungs and why those who have only one Auricle, and one Ventricle have cold blood &c

Vital Air, by combining with the blood forms the Carbonic acid, which may be considered as Antiputrescent as long as it remains in the circulation; and that it is afterwards emulled through the pores of the Skin according to the experi=ments of the count de Milly — and the Observations of M. Fouquet.

Vital Air has been used with success in certain Disorders Mr Caillens caused persons affected with ~~it~~ phthisical diseases to respire it with great success.

New Nomenclature.

Nitrate of Potash – or common Nitre –
Sulphuric Acid – or Oil of Vitriol
Sulphate of Pot. ash. or ~~Vitriolated~~ Tartar.

Sulphuric Acid or Oil of Vitriol. formed by the combustion of Sulphur with oxygenous gas.

Vitriolated Tartar – or Sulphate of Pot. ash – it is formed by the combination of the Sulphuric acid and pot ash – or Vegetable alk.

Glaubers Salt – or Sulphate of Soda –
It is formed by a combination of Sulphuric Acid & Soda –

Sulphate of Ammoniac or Glaubers fecut Ammo=niacal Salt –

Aqua fortis – or Nitric Acid – it is made by mixing one part of Saltpetre with 2 or 3 of red bolar Earth. Stahl and Runckel has spoken of a very penetratory Aqua fortis of a blue colour, obtained by the distillation of Nitre with Arsenic –

Nitre – or Nitrate of Pot. ash – it is found ready formed in certain places – it is extracted in France from the Ruins & plaster of old houses. Blood & Urine are the most favorable parts of an animal for its formation –

Muriatic or Marine Acid —

Muriatic Acid - Marine Acid - Sp.t of Salt - formed by
Sea Salt - Sulphuric Acid & Water

Muriate of Soda - or common Salt —

Muriate of Ammonia or Sal Ammoniac

Nitro Muriatic Acid — or Aqua Regia — 2 oz com.n Salt

Borate of Soda or Borax —

Sulphate of Magnesia, Epsom Salt.

Nitrogene Gas, Azote, or Atmospherical Mephitis

Air which has served the purposes of Combustion and Respiration, is no longer proper for those uses: the Air thus corrupted has been called phlogisticated Air, Mephitised Air, Atmospherical Mephitis &c. I call it Nitrogene gas.

A. It may be obtained according to Scheele by exposing Liver of Sulphur in a Vessel filled with Atmospherical Air, the Vital Air is absorbed; and when the Absorption is complete, the Nitrogene Gas is complete

A. It is improper for Respiration & Combustion

B. Plants live in this Air & freely vegetate in it.

C. This Gas Mixes with other Airs without Combining with them.

D. It is lighter than the Atmospheric Air

E. Mixed with Vital Air, in the proportion of 72 to 28 it constitutes our Atmosphere.

Concerning the Mixture of Nitrogene and
Oxigene Gas; or of Atmospheric Air -
72 parts of Nitrogene & 28 of oxygene —

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ontained in bodies either in a State of
xture or in a State of combination - in the
it renders bodies humid, is perceptible
, and may be disengaged with the
facility. In the second, it exhibits
acter which shews that it is in a
Mixture. It exists in this form in
als, Salts, plants, Animals, &c — It is
ter is y celebrated Bernard has called gene
Water; — Water existing in a State of
ation in bodies consists in imparting
hardness and transparency. Salts &
tony Chrystals, lose their transparency
hey are deprived of their Water of Chrystallization.

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3, The Virtue of dissolving Soap is the
Curdling. —

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Nitrogene Gas, Azote, or Atmospheric Mephitis

Air which has served the purposes of Combustion and Respiration, is no longer proper for those uses: the Air thus corrupted has been called phlogisticated Air, Mephitised Air, Atmospheric Mephitis &c. I call it Nitrogene Gas.

1. It may be obtained according to Scheele by exposing Liver of Sulphur in a vessel filled with Atmospheric Air, till the Air is absorbed; and when the Absorption is complete, the Nitrogene Gas is left.
2. It is improper for Respiration &c.
3. Plants live in this Air & freely vegetate in it.
4. This Gas Mixes with other Airs without combining with them.
5. It is lighter than the Atmospheric Air.
6. Mixed with Vital Air, in the proportion of 72 to 28 it constitutes our Atmosphere.

Concerning the Mixture of Nitrogene and
Oxigene Gas; or of Atmospheric Air —
72 parts of Nitrogene & 28 of oxygene —

Water is contained in bodies either in a State of
Simple Mixture or in a State of combination. — in the
first case it renders bodies humid, is perceptible
to the eye, and may be disengaged with the
greatest facility. In the second, it exhibits
no character which shews that it is in a
State of Mixture. It exists in this form in
Chrystals, Salts, plants, Animals, &c — It is
this Water to which celebrated Bernard has called gene-
rative Water; — Water existing in a State of
combination in bodies concurs in imparting
to them hardness and transparency. Salts &
most stony Chrystals, lose their transparency
when they are deprived of their Water of Chrystallization.

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and view of
3, The Virtue of dissolving Soap, with
Curdling. —

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Nitrogene Gas, Azote, or Atmospheric Mephitis

Air which has served the purposes of Combustion

Acids are indebted to Water for their fluidity
Under these various points of View, Water
may be considered as the general Cement of Nature
The Stones & Salts deprived of it become pul=
= verulent; & Water facilitates the coagulation
. Reunion, & consistence of the particles of Stones
Salts &c. as we shall see in the Operations
performed with plasters, lutes, Mortars
&c. —

D

Combining principle.

D. It is lighter than the Atmospheric Air

. E. Mixed with Vital Air, in the proportion
of 72 to 28 it constitutes our Atmos=
= phere.

Concerning the Mixture of Nitrogene and
Oxigene Gas; or of Atmospheric Air -
72 parts of Nitrogene & 28 of oxigene —

Concerning the Combination of oxigene
Gas and Hydrogene which forms Water.

Water in the State of Ice —
Water in the liquid State. —

Pure Water requires to be agitated & combin
with the Air of the atmosphere in order
to render it wholesome — Hence, no
doubt it is that Water produced by
Melting Snow, is unfit for Drink —

The Characters of potable Water are
the following:
1, It is lively, fresh, & agreeable to taste —
2, The property of boiling Readily, &
also that of boiling Pease, & other pulse
3, The Virtue of dissolving Soap without
Curdling. —

Concerning Water in the State of Gas -

Sect: viii

Concerning the Combinations of Nitrogene Gas. 1 With Hydrogene Gas - 2. With the earthy principles forming the Alkalis

Every Substance is called an alkali which is characterised by the following properties -

A. an acrid ~~substance~~ burning, Urinous, Taste

B. The property of converting Syrup of Violets green; but not the Tincture of Turnsole, as certain Authors announce.

C. The Virtue of forming Glass, when fused with Quartzose Substances.

D. The faculty of rendering Oils miscible with Water; of effervescing

with certain acids; and forming Neutral
Salts with all of them.

Alkalies are divided into fixed alkalies
and volatile alkalies —

Concerning fixed Alkalies

Only two kinds of fixed alkalies have
hitherto been discovered —

1 Vegetable alkali — or Pot ash
2 Mineral alkali — or Soda —

Concerning y^e Veg: alk. or Pot Ash

The alkali extracted fr^m the lixivium
of wood ashes is known by the
Name of Salin. The Salin cal-
cined and by this means disengaged
from all the blackening principle
forms Pot Ash. —

Hard Wood contains the most
as Beech, Box &c.

To procure Salt of Tartar speedily &
economically burn a mixture of equal

A. If salt of tartar is decomposed and deprived of its fixed air by the acid it contains the alkali remains alone and the acid is called Saturated with alkali.

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parts of nitrate of pot ash or common Nitre and Tartar the residue after liscviation affords a beautiful Salt of Tartar.

Mineral Alkali or Soda

It is obtained from marine plants by combustion: for this purpose they are heaped together and burnt in a hole after wch the salt remains. The Barilla of Spain affords the beautiful Soda or Rock Soda of Alicant. The Mineral Alkali is sometimes found in a native state, in Egypt it is known by the Name of Natron the 2 Lakes of Natron described by Volney are situated in the desert of Kiet on the Delta. I differ from the vegetable because 1. it is less caustic. 2. It is so far from attracting humidity

Du Hamel & Grosse proved in 1732 the existence of Alkali in Lixivium Tartari by treating it with nitric, sulphuric and other Acids.

Rouelle & the Marquis De Bullion, proved that Tartar exists in Must

The combustion of Tartar of Wine in water smells exactly like burning Coals or Wood it therefore contains an Empyreumatic oil which is destroyed by fire

The Alkali remains in a State of neutral
Salts until deprived of its Carbonic Acid
when it becomes more caustic and is
then called Caustic Alkali, Pure P. Ash
or Pure Soda. When this Alkali is cva=
=porated & brought into the dry form
it is known by the Name of Caustic
Causticus. The corrosive Virtue of
this Substance depends principally
upon the avidity it has for fixed Air
and falls into deliquium —
The Caustic Alkali contains a small
quantity of Carbonic Acid, Silicous
Earth, Iron, Lime, &c —
The Solutions of Sulphur in Alkali
are known by the Name of Livers of
Sulphur, Sulphurets of Alkali &c.
The Sulphur may be precipitated
by Acids which is called the Milk
of Sulphur.

These Sulphures or Hepars dissolve
Metals - even Gold - Stahl supposed
that Alcalis dissolved the Golden Calf
by them to enable the Israelites
to drink of them.

25 pounds of Chalk well washed in
warm Water and exposed to the
exhalation of Bullocks blood in
putrefaction during eleven Months
afforded nine Ounces of Nitrate
of Lime in a drie State - and
3 Ounces of Nitrate of P. Ash or
Common Nitre --

-- Concerning Ammoniac
or
Volatile Alkali -

equal parts of Sifted lime and muriate
of Ammoniac or common Sal Ammoniac
in powder are mixed.

further Remarks
Concerning Ammoniac

Some Plants afford Volatile alkali for which reason they have been Called Animals Plants. But the Volatile Alkali is more especially afforded by animal Substances: Horns are employed in preference because they are resolved almost entirely into Oil and Volatile Alkali — The Putrefaction of almost all animal substances produces Volatile Alkali; almost all the Vol. alk. made use of in Commerce or Medicine is afforded by the decom=position of Sal ammon: —

To obtain Ammoniac in a con=siderable State of purity equal parts

of sifted quicklime and muriate of
Ammoniac or Com. Sal ammon
are mixed - This Mixture is then
introduced into a Retort to which
a Receiver and the Apparatus of
Woulfe has been adapted. A Quan-
tity of pure Water is to be put into
the bottles Corresponding to the
weight of the Salt employed &
and the punctures of the Vessels
are made good with the usual
Lutes. The Ammoniac is dis-
engaged in the State of Gas, at the
first impression of the fire.
It combines with the water with
heat: and when the water of the
first bottle is saturated, the Gas
passes to that of the second and
saturates it in its turn -

Concerning acids

The Causticity of acids appears to arise from their strong tendency to Combination and it is from this property that the immortal Newton has defined them to be Bodies in attract and are attracted. It is likewise from this property that certain Chemists have supposed acids to be pointed bodies. —

It may be obtained also by decomposing the muriate of Ammoniac by Quick lime and receiving the product over Mercury. According to the experiments of M. Berthollet this Alkali is a compound of the Nitrogenous and hydrogenous Gases.

Concerning the Combination of Oxygene with certain Bases forming Acids —

B. Second Property of Acids is the colour of Litmus or Violets &c.

The Tincture is prepared by infusing in Water that Substance which is known in common under the Name of Litmus or Turnsole

C. Acids effervesce with Alkalis; and form Neutral Salts —

Concerning the Carbonic acid

This acid is almost always observed in the State of Gas. Van Helmont called it Gas Sylvestre —

The Carbonic Acid or fixed Air is a combination of Oxigene and Carbone or pure Charcoal - it is found in 3 States

1 In a State of Gas. 2 In a State of Mixture
3 In a State of Combination -

It is found in the State of Gas in the Grotto del Cano near Naples; also in Wells, cellars, &c. at the Well of Perols near Montpelier on the Lake averno in Italy.

2. It exists in a State of Simple Mixture in mineral Waters, since in these it possesses all its acid Properties —

3. It exists in a State of combination in Stone common Magnesia, Alkalo &c.

4. In a State of Mixture as in Water, brisk Wines &c.

It is an acid as is proven from its turning turnsole Red.
It is unfit for respiration.
It is unfit for Vegetation.

The Carbonic Acid in alkalis communicates to them the property of effervescing

Article I

Carbonate of Pot Ash

or

or formerly - Cretaceous - Tartar

Article II

Carbonate of Soda

Artic. iii

Carbonate of Ammoniac —

This has generally been known by the Name of concrete Volatile alkali —

Tobacco affords a large proportion of it —

Sulphuric Acid —

It is obtained by the Combustion of Sulphur by oxigenous Gas. and is performed in a large Chamber lined with lead. it is manufactured in Holland

~~Sulphur may be covered~~

The combustion is facilitated by mixing about one eighth of a Nitrate of Potash with the Sulphur — The acid Vapours which fill the Chamber

are precipitated against Sides, and the con=
=densation is facilitated by a stratum of
Water dispersed on the bottom of the
Chamber. when the Water is sufficien
~~concentrated~~ impregnated with acid, it
is concentrated in leaden boilers, and rec
=tified in glass Retorts to render it white
and concentrate it sufficiently for the
purposes of trade.— when of a sufficien
strength it indicates 66 Degrees accordin
to Beaume and when it has not been
carried to this degree it is unfit
for most of the uses for which it
is designed. It cannot be employe
for example in dissolving Indigo for
the small quantity of Nitric Acid whi
it contains unites with the blue of the
indigo and forms a green Colour. And
I have been a Witness to the failing
of Colour and the loss of Stuffs in con=

The process used in Commerce to make aqua fortis consists in mixing one part of Salt petre to 2 or 3 parts of red bolar earth. by repeated distillation- The Salt petre is decomposed by means of the Sulphuric acid- Stalk & Henckle have Spoken of a very penetrating aqua fortis, of a blue Colour, obtained by the distillation of Nitre with Arsenic— The Nitric acid when mixed with Metals oils renders them thick and black, converts them into Charcoal or inflames them, accordingly as the acid is more or less concentrated or in a greater or less quantity.— If very concentrated nitric acid be put into an apothecaries Vial, and pound upon Charcoal in an unpalpable powder, and very dry, it sets it on fire instantly, at the same time that carbonic ac

are precipitated against Sides, and the
=densation is facilitated by a stratu
Water disposed on the bottom of
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~~concentrated~~ impregnated with ac
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* Nitrate of Potash or common Nitre Mr Dombey observed a great quantity of Saltpetre near Lima, upon earths which serve for pasture and which produce only gramineous plants. — Mr Talbot Dillon in his travels into Spain relates that one third of all the grounds and in the Southern parts of that kingdom even the dust of the roads contain Saltpetre — in the North of Europe the Salt. Petre beds are formed with Lime, ashes, earth, of uncultivated Grounds, and Straw, which are stratified, and watered with Urine, dunghill Waters & Mother Waters, these beds are defended by heath or broom

In order to purify Nitre it must be dissolved in fresh Water which is evaporated, and to which bullocks blood may be added to clarify the Solution —

Powder is triturated by pounding Mills, whose pestils & mortars are of Wood - and in order to granulate it it is passed thro' Sieves of Skin whose perforations are of various sizes. —

=sequence of the imperfection of this Acid.

It is distinguished by different Names according to its various degrees of Concentration

Vitriolated Tartar or Sulphate of Pot Ash

Glauber Salt or Sulphate of Soda

Aqua fortis or Nitric Acid

*Nitre — or Nitrate of Pot Ash

A Mixture of seventy five parts of Nitre, nine and a half of Sulphur and fifteen and a half of Charcoal form Gun Powder.

The fulminating Powder is made by mixing three parts of Nitre 2 of Salt of Tartar and one of Sulphur —

Nitrate of Soda —

or

Cubic Nitre

Nitrate of Ammoniac

Alum —

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Concerning the Muriatic Acid — It is applied to the whitening of Linen, Common Ink disappears by the action of this acid but Printers Ink is not attacked by it.

Marine Acid —

or

Spirit of Salt.

Obtained by Marine Salt & Sulphuric Acid and Water —

Muriate of Potash —

or

Febrifuge Salt of Sylvius —

it is found in the ashes of Tobacco. —

Muriate of Soda —

or

Marine Salt — Common Salt and Culinary Salt — is found native in mines in Poland, Catalonia, Switzerland, &c. this Native Salt is called Sal Gem as it posess considerable brilliancy.

Muriate of Ammoniac —

or

Sal Ammoniac

It is extracted by distillation from Soot by the Combustion of ~~fuel~~ the excrements of Such animals as feed on Saline plants — which is brot to us from Egypt. —

* Lithology.

We may refer all the Phenomena of formation or decomposition which a Stone is susceptible of, to the mere Law of affinities.

The earthy elements most extensively distributed are five in number, Lime, Magnesia, Barytes, Alumine & Silex, —

Lime.

This earth has been found totally disengaged from all combination near Bath. —

Barytes

Pure Barytes is of a pulverulent form, and extremely white. — it precipitates alkalis from their combination with acids. —

Magnesia or Magnesian Earth.

Marble

Black Marble is coloured either by bitumen or by Iron. Mr. Bayen found this Metal in the proportion of five parts in the hundred. Blue & green Marbles owe their Colour to a Mixture of Schorle. —

Solid calcareous Stone is in general the Stone used for building. —

The Stony depositions in the Grotto called
Des Desmoiselles have given rise to a
belief in the Vegetation of Stones. —

The most surprising of all petrifying ~~Springs~~
Waters is that of Guancavelica in Peru,
~~Bouha~~, D. Feuille informs us that this
Water rises very hot in the middle of
a Square bason, and becomes petrified at
a small distance from the Spring. The
Water is of a yellowish white and the incrus
=tations have been used to build the houses
of Guancavelica. — The Workmen
fill Moulds with this Water and
some days afterwards, they find them
encrusted with this Stone. The Statuaries
expose their Moulds in this Spring and
have only to give the polish in order to
render their Statues transparent. All
the Statues used in Religious ceremonies
by the Catholics of Lima, are of this substance
and are very beautiful. —

The analysis and uses of Calcareous Stones

The best Lime is that which is the most quickly divided by immersion in water and affords the greatest quantity of heat in this ~~xxxxxxxxxx~~ process which causes it to fall into the finest powder. —

Sulphate of Lime, Gypsum, Selenite,
Plaster Stone. 100 parts of Gypsum contain
30 Sulphuric acid — 32 pure earth — 38 Water.
it loses 20 per Cent by calcination.

Fluate of Lime, Vitreous Spar, fusible
or phosphoric Spar, Fluor Spar. —
This Stone is a combination of a peculiar
acid called the fluor acid, with Lime. —
The Fluoric acid posseses the property of
attacking glass, and dissolving and carrying
off its Siliceous part. —

Nitrate of Lime.

muriate

Sulphate of Magnesia Epsom Salt.

It exists in the mineral Waters of Epsom of Sedlitz, &c. it is known by the Name of the bitter Cathartic Salt. — It does not effloresce in the air which distinguishes it from the Sulphate of Soda. The Sulphate of magnesia in Commerce has the form of small silky needles very white —

100 parts of this Salt contain 24 pts. acid 19 earth, & 57 Water. —

Nitrate of Magnesia — *

Carbonate of Magnesia

Fire carries off the Water and the acid and in this State the residue is called calcined Magnesia —

Sulphate of Alumine or Alum. —

Most of the Alum in commerce is afforded by ores which are dug out of the earth for this purpose we may reduce all the operations of this

Nitro Muriatic Acid —

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Manufacture to three or four — The decom-
= position of the ore, the lixiviation of
the ore the evaporation of these lixiviums
and The Chrystallization of the alum

the art of
alum is used in Dying — to impregnate
paper & Cloths intended to be printed
it is added to Tallow to render it
harder — The Printers rub their balls
with calcined alum, to cause them to
take the Ink —

The Glazes of Pottery are usually made
either with the Sulphureous lead ore
called Alquifoux & in in England
Potters Lead ore, or with the yellow
Copper Ore — ~~It is~~

= For this purpose these substances
are reduced to Powder mixed with
Water, and the Vessel previously
dryed by a slight baking — is dipped
in the Mixture — the porous Vessel
absorbs the Water, while its Surface

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becomes covered with the pounded ore. The Vessel is then carried to the furnace and baked by a heat which vitrifies the ore upon its surface: and it is this metallic glaze which forms the glaze of the Potters, and is of yellow or green, according to the Metal made use of. — These Glazes are all dangerous as they are soluble in fats, oils, acids &c. —

The glazing of Fayance is nothing else, as is well known, but Glass rendered opake by means of the oxide of Tin — It is the Glass called Enamel — To make the fine white enamel of the Potters, one hundred pounds of Lead, thirty of tin, ten of Marine Salt and 12 of purified Potash are calcined together and after calcination & fusion produces a beautiful enamel, which is applied in the same manner as the Glaze before spoken of.

Nitro Muriatic Acid -

Father Dentrecolles Sent from China
the Substances used in the fabrication
of porcelain - They are known by
the Name of Kaolin and Petunze -
Similar Substances were soon found
in France - 4 principal Operations
may be distinguish'd in the Manu-
= facture of Porcelain - 1 the prepa-
= ration, the Mixture of earths, and
working of the paste. 2 the first
baking which forms biscuit. 3
The Application & fusion of the glaze
and covering - 4 the Art of painting
which demands a 3rd Baking
in order that the Colors may
be better combin'd, fused, and
amalgamated with the glaze.

Red Gems, or Precious Stones - The Ruby,
Garnett, &c. —

The Ruby is a precious Stone of
a fiery Red Colour, electrical by friction
giving fire with the Steel, the most
ponderous and hardest of the precious Stones.

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The Garnet — J

Yellow Gems or precious Stones —
The Topaz the Hyacinth &c. —

The Topaz is of a gold Colour.

Green Gems — The Emerald — Chrysolite,
Beryl &c. —

Blue Gems — Sapphire —

Rock Chrystal

Red Chrystal. False Ruby

Silex, alumine, Lime, and Iron form Gun flints

The Diamond
Divided into 2 kinds The oriental and
Brazilian — The green are most
esteemed — The colouring principle of Stones
is of a metallic Nature —

Geology

Chaptal imagines that at the Epocha when Earth
& Water was confounded — that by the Laws
of Gravity — the earthy Matter must have
precipitated and formed a mud, in which
all the elements of Stones were confounded
and by the Laws of affinity all analogous parts were brought
together

Nitro Muriatic Acid —

Acid of Borax

*Borate of Soda or Borax

It is brought to us from the Indies —

Borate of Ammonia —

*Litiology

The earthy elements most extensively distributed are five in Number, Namely, Lime, Magnesia, Baryte, Alumine, and Silex,.

Lime,

Carbonate of Lime or Lime Stone

1. It effervesces with Lime — 2. It is converted into Lime by Calcination — it is formed from the wearing down of Shells

Nitrate of Lime or calcareous Lime Salt

Muriate of Lime or Calcareous Marine Salt

Phosphate of Lime or Calcareous Phosphoric Salt

* Borax is dug up in a Crystalline State from the bottom of certain Lakes in mountainous Volcanic districts about 25 days Journey to the East of Thibet

Carbonate of Baryte
Nitrate of Baryte
Muriate of Baryte

Earthy Salts with Basis of Magnesia

* Sulphate of Magnesia or Epsom Salts
Nitrate of Magnesia —
Muriate of Magnesia —
Carbonate of Magnesia —

Earthy Salts with Basis of Alumine

Sulphate of alumine, Alum —
Most of the Alum afforded in commerce is
~~that~~ afforded by Ores dug out of the Earth

The decomposition of this Mineral is afforded either in the open Air without assistance or by fire —

Rock Chrystal

Peter Peter

B. James Mc Knight Esq.

B.C.H.C.

Omnis derivat

Nemo B

Jane Bennet Champ

Cretaceous Fossils

Notes

of Sixteen Introductory Lectures to
Courses of Lectures upon the Institutes &
Practice of Medicine, with a Syllabus
of the latter.

To which are added,

Two Lectures upon the Pleasures of the Senses
And of the Mind (with an enquiry into
their proximate Cause.

by B. Rush M. D.

Lect: I.

On the Necessary Connexion Between
Observation and Reasoning in Medicine

Delivered Nov 7th 1791.

The Venerable Professor commences by congratulating
his Class upon the union of the two Medical
Schools. he considers this event will place the
University of Penns: on equal footing with
any of the European Schools - and adds that
there will be ~~partners~~ in preference in the Mind

of the american Student. In the first place he will here study the Diseases of the Country in which he is to practise. I adds that that Climate, Aliment & Habits of Society have so much influence upon the Characters of Diseases, that they seldom appear in the same forms, or yield to the same Remedies in different Countries. And secondly from the Character of our domestic Diseases thus known he will be able more readily to detect when it is suspected from Empirical Systems of Med: & to adopt Principles which are founded upon the Signs of Diseases in his own in Med: Country. — Experience is from many often Causes fallacious — an hundred circumstances from the difference of treatment produce a difference in the Symptoms and Course of similar Diseases and in the Operation

of the fewer Medicines. — The Effects of Nature are often mistaken for the Effects of a favourite Prescription and the Crisis of a Disease ascribed to Medicine which have been thrown out of a Window, or emptied behind a Fire. —

To an Exclusive Reliance Upon Theory in Med: One an equal Number of Objections, I shall mention a few.

1. An Imperfect Knowledge of the Structure of the Human body and of the Animal Economy.

2. The limited Extent of the human Understanding, which acquires Truth too slowly to act with Effect, in the Numerous & Rapid Emergencies of Diseases.

3. The Influence of the Imagination & Passions upon the Understanding in its Researches after Truth. —

he says it is peculiar to man to do what
was intended by the Author of Nature to be
undivisible: Religion and morals, Government
& Liberty, may even Reason & the Senses
so happily joined by the Creator of the Universe
in the order in which they have been ment-
-ned, have each been disunited by the
Caprice & folly of Man. —
Hence he reasons upon the great Necessity
of combining Experience & Theory &
Practice — He lays great stress upon the
Utility of Theory - and says it often
supplies the place of Experience. for
he says with just Principles it is no more
necessary for a young Physician to see
all the Diseases of the human Body
before he prescribes for them than for
a Mariner who knows the Principles

of Navigation, to Visit all the Ports in the World, in order to conduct his Vessel in Safety to them. He further illustrates the benefits of Theory by noticing its influence upon the use of several celebrated and Popular Remedies.

The use of Cold in Fevers was the effect of accident probably & how it was indiscriminately used in every grade of Fever & it was often untill Jam of the Diseases - But Chemis=try taught us that its good effects depended wholly upon its abstracting the heat of the Body, that its application was limited to those cases only, which are accompanied with preternatural heat and Excessive Action in the Blood Vessels. Since the use of Cool Air has been regulated by this Principle, its effects have been uniform

Salutary in Inflammatory Fevers.

While the Peruvian Bark was believed to act as a Specific in the Cure of intermittents it was often an ineffectual, and sometimes a destructive Medicine. but since its Tonic & Astringent Virtues have been ascertained, its injurious effects have been Restrained, and its salutary operation extended to the those Fevers, or ~~the~~ intermitting. Remitting, or Continued, in which a feeble Morbid Action takes place in the Sanguiferous System. —

Opium was formerly used only as an antidote to Wakefulness and Pain, during which time it often increased the Danger & Mortality

of Diseases, but since its Stimulating Virtues have been discovered its exhibition has been Regulated by the degree of Excitement in the System, and hence it is now administered with Uniform Safety & Success.

Mercury was prescribed empirically for many Years in the Cure of Venereal Diseases in which it often did great Mischief but since it has been discovered to act as a general Stimulant & Evacuant just a Ratio has been Established between it and the State of Disease, as to render it a safe & nearly an Universal Medicine. — Quacks are the greatest Liars in the World Except their Patients.

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"He esteems truth the only Knowledge and
that labouring to defend an Error,
is only striving to be more ignorant."

Rev. Dr Finley once President of Nassau
Hall - College in N. Jersey. —

The Institutes of Medicine are divided into
Physiology, Pathology and Therapeutics.

I Physiology includes the history of the human
Body in its healthy State. —

II Pathology has for its Objects the knowledge
Exciting & proximate Causes of Diseases.

III The Therapeutics will contain an Account
of the Operation of Remedies in the
Cure of Diseases. —

IV Clinical Lectures will form a
material part of the Course. He
will begin by a few Remarks upon
the Method of Visiting and Examining Sick
People.

He should then proceed to point out the
usual Signs of Diseases as they appear
in every part of the Body and especially
as they are discovered in the Pulse. he
should afterwards exemplify these premises
Remarks in the public Examination &
Treatment of such Cases in the Hospital
as afford the most practical instruction.
He says he shall continue to assert that
Principles in Medicine, are the only safe
and certain guide to successful Practice.
Then follows his Syllabus of a Course
of Lectures upon I Physiology, II Pathology,
III Hygiene, and IV the Practice of Medicine
or Therapeutics —

Hygiene

On the frailty of the human body, and the impossibility
of Obviating its decay and Dissolution, by any
Remedy or mode of living.

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of the Means of preserving Health and promoting Longevity. —

Of the faculties of the human Mind.

There are

Instinct.
Memory.
Imagination
Understanding
Will —
Passions and Emotions
Faith.

Moral faculties in which are included what is called the Moral Sense Conscience & the Sense of Duty.

Of Taste —

Of the Operations of the Mind, the principal of which after Sensation are

Perception
Apocation
Judgement
Reason
Volution. —

Of Genius, intuition and Common Sense
Of Attention, Reflection, Contemplation
and Wit.
Of Consciousness —
Of the Manner in which the faculties
of the Mind are evolved.
Of the faculties and operations of
the human Mind which distinguish
them from those of Brutes.
Of the Pleasures of the Senses and
of the Mind and of their proximate
Cause.
Of the Causes of Sleep & Dreams, and
Somnambulism. ——

Lect: II

On the Character of Dr Lydenham
Delivd Dec. 9. 1793.

Dr. L. was made M. D. in the University
of Cambridge. —

He established the Axiom in Med: that
two Epidemics of unequal force
could not long exist in the same
place at the same time. ——
But Dr. Sydenham goes further and
proves that where the Monarchy
of a Disease was not immediately
acknowledged, by a sudden relief
of all cotemporary Diseases they
were forced to do Homage to it
by swearing its Livery. —
In fevers of great Morbid action he
advised his Patients not to lie in Bed
any more than possible that they
might derive the advantage of cool
air ÷
a Diet he ever always very precise to
his Patients in ÿ Respect.
3. Bloodletting —

Lect iii

On the Causes of Death, ie Diseases that are not inevitable.

Delivd: Nov: 26. 1798.

I Those which are derived from Physicians.

II Those which arise from the Conduct of Sick People — and

III Those which arise from the Conduct of their Attendents & Visiters.

1st Ignorance in a Physician.

2d Negligence of Do.

3. Connecting the Measure of Service with pecuniary Considerations. —

4 Forgetfulness in Physicians to attend Patients Regularly.

5 A preference of Reputation to the Life of a Patients. — i.e, letting them die without making a proper & hazardous

effort to Save them. — The Death of
a Patient, under the ill directed Operations
& Nature, or of what are called benient
and safe Medicines, seldom injures
the Reputation or business of a
Physician. For this Reason many
People are permitted to die, who
might have been Recovered by
the use of Ancient Remedies. —

6th A Sudden Indisposition a Hacking
a Physician. so as to Render him
Unable to Visit his Sick.

7th In the Composition & Dose of Medicine

8th Prescriptions written in a careless &
illegible hand. — perspicuity in Writing
and Speaking ought to Constitute an Essential
Part, not only of the Learning but of the
Morality of a Physician —

of Patents

1 Ignorance of Patients — the bold & artful Physician is often preferred to the Modest & Skilful. —

2. Prejudice as to their Physicians which ~~Is~~ is either of a Religious or ~~Political~~ Political Nature, the former leads men to prefer Physicians of their own Sect; the latter of their own party — without any Regard to Talents or Knowledge. It is because our Profession is a degraded One, that Gentlemen of other Professions usurp the Right of thinking for us. upon political Questions. Eminent Talents at the Bar command business from Men of all parties. The learn 3 this difference in the Conduct of Mankind towards the two Professions is; that the Value & Danger of Property is better known and more sensibly felt, than the Value & Danger of Health & Life. —

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3 Fashion, this imitative Distinction
Discovers itself by leading Men to delight
in deformity — The humpback of Alexander
was aped by all his Officers. —
Dionis says after he had cut Lewis ~~the~~
for a fistula in ano, he was ~~assisted~~
upon by a great Number of the Nobility
in France to ~~know~~ examine wether
they had not the same disease

4 by neglecting to apply in due time
for medical Aid. — Cancers &
Consumptions have been called
incurable Diseases. This is far from
being true. If the Tumors which precede
nearly all Cancers were extirpated
immediately after they were Discovered
and if the premonitory Symptoms ~~of~~
~~that~~ of Consumption were met by proper
Remedies, we should seldom hear of
Persons dying of either of those Diseases.

5 Neglect of Patients to comply with the prescriptions of Physicians.

Patients who recover, sometimes honour=ously insult their Physicians, by telling them of the improper, and even prostituted use to which they have applied their Medicines. — Sir Richard Nash was once asked by his Physician if he had followed his prescription — "If I had" said Sir Richard "I should Certainly have broken my neck, for I threw it out of the Window."

False delicacy, by restraining the use of Oysters has sometimes been attended with the same fatal Consequences. —

6. Neglecting to use prescriptions at the time and manner in which they were prescribed. —

Bleeding in our Epidemic was most
useful during the Paroxysm.

7. The indulgence of the appetite
for food & drinks that were improper.
Relapses & Death are the frequent
Consequences of irregularity in this
Way. —

8. Fear — Dreaming of Dying — &c.

9. A Dread of the Expenses of
Medical Services — by preventing
early application to a Physician
this sometimes proceeds from Avarice
but often from Poverty —

10th A peculiar irritability of Temper
A sudden Paroxysm of anger has
sometimes occasioned Death in high
States of Fever —

11th. Improper application to business
& Study & Tiding out prematurely.
he knows two instances of Death
from the impatience of Sick People
to enjoy the benefits of Exercise and
Country Air.

12th. An Excess of Delicacy by Concealing
the Nature & Seats of Diseases.

13th. Love, Debt, and Guilt.

14th. Habits of Secret Drinking —

From the Conduct of Attendants
and Visitors of the Sick. —

1st. The fatal Effects of Consultations
between Physicians of opposite
Medical Principles. — It depens
Responsibility &c. &c. — He says it
is a fact that there is not only different

Modes of curing the same Disease
but that the same Disease may be
cured by Opposite Medicines

From Nurses -

1st They Neglect to give Medicine, Drinks
and Diets, at the time and manner
in which they were prescribed.

I lost a Patient once from the failure
of an Enetic to produce the Effect intended
by it. I discovered that the Nurse threw
half of it in the fire, from a fear that
the Whole dose would work him
to Death. — Also by neglecting to
change their Linen - by keeping them
too hot or too cold. However trifling
these acts of Negligence may appear,
I believe they have in many hundred
instances rendered Diseases Mortal
that might have been cured. —

2d Among a great Diseases in destroying Life by Ignorance — I prescribed Bleeding in a Paroxysm of Yellow Fever the Nurse declared having him bled lest it should check a trifling sweat which broke out soon after I left him — This Patient died a few days afterwards and I believe chiefly from the Shock given to his System by a Paroxysm & Fever spending itself without an evacuation proportioned to its Violence. —

3d by robbing sick People of the Drinks and aliments that are prescribed for them. —

4th By desiring to give Medicine from a Despair of their doing good. — this

knowledge of the Conduct of a Nurse
is highly interesting to a Physician
in Cases of imminent Danger when
he will find a great Advantage
in Securing his Patients from their hands
and committing the Care of them
exclusively to a friend or Pupil
Who will faithfully comply with
Prescriptions. ——

Visitors of the Sick —

1. Physicians who are not sent for.
by Obtruding their Advice and thereby
weakening the confidence of Patients
in Prescriptions. — This conduct was
fatal to Dr. ——
Visitors from the Neighbourhood
or Consanguinity help to render Simple

Diseases Mortal by their loud and
long Conversations, by their tales of
Sickness and Death from sundry
Diseases — by urging them prematurely
or indelicately to settle their affairs
by sapping the Confidence of sick
People in their Physicians, by
advising heterogeneous consultations
& by dispuading them from the use
of painful or disagreeable Remedies.
I had
once nearly lost an Accomplished
female Patient in this way — She
required frequent Bleedings from
which she was attempted to be dissuaded
by one of her Visitors — I persisted in
bleeding — & she was obliged even to
Conceal her Blood to avoid the displeasure
of her friends. — She Recovered & now
enjoys good health. —

Newspaper paper Publications upon the
Practice & Characters of Physicians
The Yellow Fever of 1793 devived the
principal part of its Mortality
from the Publications in favor of
Bark, Wine & the Cold Bath. —
Public Controversies of Physicians —
lead to Distrust — in 1793 & 1797
there were some Melancholy instances
of Persons perishing by the Disease
under the direction of their own
Judgement Rather than commit
themselves to the Care of Men who
had by their Dispensions acknowledged
the Uncertainty of their Profession.

Here Gentlemen let us pause — Many useful
Reflections are suggested by the Observations

Which have been delivered —

1. Let us do homage to the divine Goodness from what has been said it is evident that our Creator has provided us in the most ample Manner with the means of Life and Health. and if they fail in producing their intended effects, it is only because they are rendered ineffectual by the ignorance, folly and Wickedness of Man. —

2. Let us duly appreciate the difficulties of a Physicians Studies and Labors.

He must embrace and control as many Objects in contending with a Disease, now especially if it be of a dangerous Nature as a Gen.l does in arranging his Troops and fighting a Battle — Death presses upon him from Numerous Quarters; and nothing but the most accumulated Vigor of every Sense

and faculty, excited with a Vigilance that precludes the Abstraction of a single thought or the Repose of a moment, can ensure him Success in his arduous conflict. It is possible for a Patient to Reward the Mechanical parts of the Labor and Knowledge of a Physician; but no Compensation can ever be an equivalent for such Paroxysms of Solicitude and Mental Excitement as have been described, and which occur at all times and more especially during the prevalence of great and Mortal Epidemics.

3. From what has been said we may learn that Medicine is a more certain and perfect Science than is commonly supposed. To judge of its certainty by the limited Nature of its usefulness

is to exclude from our Calculations
all the circumstances which have been
Mentioned that militate against
Successful practice. As well might
we deny the fertility of a Soil, because
the Owner of it neglected the proper
Seasons and ways of cultivating it
as deny the Certainty of Medicine
because it does not produce Salutary
Effects in Spite of the Combination of
Voluntary ignorance, Error & Vice
against them. ——

4. Dr. Tebb. said "no good Effort was lost"

5. I have found that the ignorance, folly &
Wickedness of Man, have hitherto defeated
the purposes of the divine benevolence
to his Creatures. the force of human
reason has long been tried without effect
as a Remedy for folly and Vice —

To remove the folly and Vice, which Obstruct the progress of Medical Knowledge, and assist in rendering Curable Diseases Mortal, the influence of Religion must be added to the Operations of Reason.

Sect: IV

On the influence of Physical causes in promoting an increase of the Strength and activity of the intellectual faculties of Man.

Delivd Nov.r 18.th 1799

~~Sect: IV~~ The old and long Received Axiom of the Schools was "Nihil est in intellectu quod non prius fuit in Sensu" that is, in other Words, the Understanding contains no Knowledge of any kind but what was conveyed to it thro' the Avenues of the Senses.—

I shall begin by taking Notice of the Relation of the Strength and Activity of the Intellectual Faculties. —

1st to Aliment. Abstinence imparts to the Memory and Understanding a high degree of Vigour. Travels and Voyages furnish many Instances of the wonderful Fertility of the Mind in Persons who are in danger of Perishing from famine. Such are the beneficial Effects of Inanition upon the Mind that Cascades a noted Philosopher in Greece always made a practice to increase it by taking a Purge of Hellebore, before he disputed with Chrysippus, a distinguished Philosopher of the Sect of Stoics.

The Barley Broth for its Simplicity of Diet probably contributes no small Share to form the Reputation which the People of that Country have acquired for Genius & Knowledge throughout the World. — He adds however, that altho Generally ~~[illegible]~~ much benefit & Praise is due to Abstinence & Temperance yet there are few Instances to be met with in which a full Diet — consisting of gross animal Food has produced great Activity of Intellect. Fredk II King of Prussia was a great Eater.

2°. Certain Drinks is connected with Vigor & Celerity in the Operations of the Mind.

Demosthenes in Ancient and Haller

in Modern times were kept in a
Regular State of Excitement by their
drinking Nothing but Water.

Wine when taken in moderation
produces Wit & humour in Company.
it multiplies images in the imagination
of the Poet and sometimes Creates
New ~~Ideas~~ Combinations of Ideas
in the Understanding of the Philosopher.
Ardent Spirits have sometimes had
the same effects.
Coffee & Tea Excite the Understanding
in the most agreeable Manner.
The former was the Mental Stimulus
of Voltaire; The latter was used
so constantly for the same purpose
by the celebrated Dr. Johnston that
the Water in his Teakettle was seldom
Cold. happily for the interests of Science

and Literature, those two pleasant infusions have become the Cordials of Studious men in many parts of the World and thereby Rescued them from the baneful Effects of intoxicating Liquors.

3. Opium exerts a friendly and agreeable Effect upon the intellect

4 Tobacco. The well Known Hobbes always Sat in his Study enveloped in the Smoke of ten or twelve pipes of Tobacco. Fred.k 2d of Prussia used Snuff to Excess to Support his Mind above the pressure of his Seven Years War. — He adds — When the use of this Weed in any way has been habituate we sometimes See the Want of it followed by great Languor in the intellectual

faculties, this langour has been seen to
yield, in an instant to a pinch of
Snuff or a Segar.
5th Different Portions of the Body, and
different exercises, have a sensible
influence upon the intellectual faculties.
Descartes composed his Works in Bed.
Mr Brindley found a recumbent
Posture most favorable to the exertions
of his Genius - and hence we are told
he sometimes lay in Bed three days
when he was obliged to plan a
new and difficult piece of Machinery —
Dr. R. thinks it a favorable position
and is much aided by the Silence
and Darkness of Night. and Empty
State of the Stomach in the Morning.
In some the Intellects are excited by Standing
Col: Charles Townsend of B. Parliament was eloquent only when
Standing —

Sir Joshua Reynolds always painted
in a Standing Position —

Walking assists the Operations of the
intellectual faculties in an eminent
degree. the Name of Peripatetick
Phylosophers was derived from their
habit of Walking and teaching
at the same time.

Riding — Also — Mr. Pope
was aided by riding a trotting Horse in
exciting some of his most elegant
Ideas.

6. Loose Dress — It is from the habits
of Mental Ease that Students
7th Weakness, Disease and Pain, men become slovenly in Dress
give a preternatural excitement
to the human intellect. —

Cicero, Erasmus, Pascal & Boileau
were all known, to their Cotemporaries

as much by the feebleness of their Constitutions as by the Strength of their Minds. The great mental Vigour, which has been observed in persons who are humpbacked, of which the celebrated Roman Orator Galba, and Mr Pope, furnished memorable instances, is probably occasioned by the bodily Weakness that is connected with deformity. abortive and sickly Children (it is remarked) Make sensible men and Women.

9th Music — has the Power of Exciting the Faculties of the Mind into action

10. Season — Milton poured forth his Sublime and harmonious Ideas only in the Spring. —

11th Rural and Mountainous Situations — Excite the Faculties &c — The Eclogues of Virgil the Windsor forest of Pope, the Seasons of Thompson and the Poems of Ossian all bear Witness to the

truth of this Remark.

12. Great Height produces sometimes great activity in the intellectual faculties. As travelling in a balloon.

13th. New Impressions which occur in large Cities increase the Strength of the intellect London & Paris have been for many Centuries the hotbeds of Men who have adorned and enlightened the British & French Nations.

14 Solitude and Silence. e.g. Zimmerman ~~The~~ they should be alternated with Company—

15 — Darkness — Horner & Stilton probably owed much of the vigor of their intellectual faculties to the loss of their sight.

a few other causes not admitted to be Physical act in the same way in producing more vigorous emotions of thought.

1 Certain Studies — Natural History.

2 Amusements — Chicken, Chess and Riddles —

3 The Study of Arithmetic & Mathematics but in no instance should they be studied upon Young People, when they discover an inability to acquire them with facility and Pleasure. —

Corporeal Exercise should precede Mental in general in order to render their Constitutions better.

2d Changing the Objects of Study. The late Lord Chatham made it a practice to excite his Genius by reading a few Pages of Dr Barrows Theological works before he took a part in the Debates of the British house of Commons

3 Exercise of the faculties encompasing

E.g. "The Man says Dr Clark who wishes to become eminent in any Profession must read much, think much and write much.

Dr Arbuthnot the friend of Swift, never said a witty thing in Company but his miscellaneous writings show, that he possessed that talent in an eminent degree. The Wit of Satire of Peter Pindar flow only upon Paper — In Conversation it is said, he is not distinguished by them from other Men.

4 The Passions when excited, have a considerable influence on the intel= =lectual faculties. Lord Hamon says he has seldom known a Man of great genius, who was not more or less under the dominion of some strong Passion. —

Alexander & Cæsar owed much of
the force of their Military talents to
their Ambition. Pride gave to the lofty
of Cato all its elevation, and Vanity
acted powerfully in producing the
eloquence of Cicero — Avarice —
Even Grief after its first Paroxysm
subsides, has the same effect — The
Poems of Ovid & Dante written during
their Banishment — Young's Night
Thoughts &c — "Vexation" says Van
Helmont "brings forth Understanding"
this is strictly true. Hence we seldom
see Young Men, who begin the World
without Patronage or Friends rise to
eminence and fame, who have not
been exposed to frequent causes of
irritation, from Malice & Envy in early
Life.

5th The Will should never be idle in those Persons, who wish to possess great Vigor and Activity of Mind — Slaves are stupid because they have no Wills of their Own. — Business which gives the Mind Constant employment, should always be blended with Study. —

6th Conversation strengthens the intellectual faculties. Dr Franklin says some of his most original ideas were suggested to him by conversing w Persons, who were ignorant of the Subjects upon which they instructed him. —

7. The Exercise of the intellectual faculties upon certain specific subjects — These Subjects are Politics and Religion In Monarchies the Death or Birth of a Prince, the Seizure of a King & the Events of War are the principal Objects that by awakening the Attention of a whole

Nation, infuse vigour into the public Mind.
But in Republics the same vigour is
produced every two or three Years by
general Elections. These important Seasons
in which Heaven Favours one of the
dividing Lines between Man and the
brute Creation, interests every Feeling of
the Heart. they stimulate the Passions
which afterwards act upon the Understanding
and impart to it a Force, which prevents
it Relapsing into the Torpor of public Apathy
during the intervals of a general Suffrage.
From a strict attention to the State of
Mind in this Country, before the Year 1774
and at the present time, I am satisfied
the Ratio of Intellect is as twenty to one
and of Knowledge, as an hundred to one
in these States, compared with what they
were before the American Revolution.

The Sublime & various Objects of Religion are Calculated to expand the human intellect to their utmost limits, and to impart to them a facility of action. — We read, that the face of Moses shone, when he descended from conversing with his Maker upon mount Sinai. —

8th. Ideation acts powerfully upon the intellect through the Medium of the Memory. —

Of Causes which weaken the Understanding. —

1. Pruning — by unduly exercising the Imagination.

2. As a Means of retaining the Strength and Activity of the intellectual faculties, no Portion of them should be wasted on unprofitable Studies. —

3 We should not immure ourselves in a Cell in order to acquire Knowledge— It is by the Exercise of the Body and the Collision of the intellects, by means of business and conversation, that we impart to them agreeable and durable Vigor.— Men may learn to Speculate in a Closet, but they will learn to Reason only by pursuing some active Employment. Then is the same difference between the Knowledge acquired in the former and latter way, that there is between the imagin= =ary wealth acquired by Speculation and the Solid Property which is acquired by Regular and honourable Commerce.

4th As the Products of Wealth by Trade are always in proportion to the Capital which is employed for that purpose, so the Acquisition of Knowledge is always in a Ratio to the quantity of it which is already possessed.

Let us carry our Imagination forward & take a View of the Mind after it has Continued in its Renovated State ten thousand Years. The difference at that period, from its most enlarged attainments in this World, will probably be much greater than its present difference in knowledge and intellect is from that of the meanest insect. But let us protract the period of its existence to a Million of Years.— Here we behold a disproportion between its celestial & terrestrial state of knowledge and intellect probably equal to that which now exists between the dimensions of a grain of Sand, and our Globe.— It would be criminal not to carry our thoughts one Step further— Stop infinitely great must that Being be,

whose Works and Attributes shall constantly furnish New Objects for their constant & growing Exercises of the Mind — For ever feeding from them in proportion as they are expanded, after Millions of Ages have Revolved, the great Father of the Universe will be more and more incomprehensible and thereby — But I forbear — The Mind sinks beneath the weight of the infinite Object of its future contemplations, and of its own sublime and happy destiny.

5th It appears Gentn that the enlargement and Activity of our intellects are as much within our Power as the Health and Movement of our Bodies. — This Lesson has often been obtruded upon us by the entertaining Spectacles of learned Pigs, Dogs, and Several other Animals. —

6.th From ye foregoing facts we are taught in a forcible manner, duly to appreciate the blessings & civilization Science & Religion. —

7.th The facts which have been mentioned leave further to refute the objection which has been urged against the Mosaic Account of the whole human race being descended from a single pair from the weakness of the intellect in certain Savage and barbarous Nations. This Weakness is as much the effect of the Want of physical influence upon their Minds, as a disagreeable Colour and figure are of its action upon their bodies. — A late French writer has remarked, that judgement in one Parent and a predominance of imagination in the other, produce in their Offspring, the most perfect and well balanced Minds. —

8th. Rush tells us that he had known three Cubebs taken every day to have a wonderful effect in recovering the Memory. —

Lect V

On the Vices and Virtues of Physicians

Delivered Nov. D. 1803

Vices of Physician may be divided into three heads

I as they relate to the Supreme Being

II To their Patients, and

III To their Professional brethren —

An undue confidence in Medicine to the Exclusion of a Divine & Superintending Power over the health and lives of Men, is another Vice among Physicians.

Drunkenness is a Medical Vice, which offends not only God but Man. — It is generally induced by fatigue &c —

Of Vices of Physicians as relate to their Patients

1st Falsehood — This Vice discovers itself

2d ~~Fals~~ in the deceptions which are

practised by Physicians with respect

to the Cause, Nature, & probable Issue

of Diseases. — Equally criminal is

the practice among some Physicians

of encouraging Patients to extend a

Recovery, in diseases which have ar-

rived at their incurable Stage. —

2 Inhumanity —

3d Avarice — 1st in a Denial of Services

to the poor — (I once heard a Physicians

eminence estimated by the Amount of his

bad Debts and by his Doing as much

for which he was not paid —

2d Extravagant Charges and the means

employed to obtain Payment for such

Debts as are just.

To undertake the Charge of Sick People and then Neglect them. is a Vice of a Malignant Dye. The most important Contract that can be made, is that which takes place between a Sick man & his Doctor— The Subject of it is human life.

4th It is a Vice in a Physician to study more to please than to cure his Patients. a Physician is not prepared to do his duty, until he can sacrifice his interest and Reputation to preserve it.

5 The last Vice I shall mention is Obstinacy in adhering to old & unsuccessful modes of Practice in Diseases which have yielded to new Remedies—

Of the Virtues of Physicians

1. Many have been Remarkable for their piety towards God— As Hypocrates, Galen &c. Cheselden — Sydenham, Boerhaave,

Hoffman, Hahl — Dr Haller — Dr Lobb
Dr Fothergill, Dr Hartley —

2 Humanity has been a conspicuous
Virtue — It manifests itself

1st — In their Sacrifices & sufferings in order
to acquire a knowledge of all the
different branches of Med: —

2nd Sympathy with Pain & Distress
in Persons of all Ranks —

3d Humanity in Physicians manifests
itself in gratuitous Services to the Poor.
Dr Sydenham was so conspicuous in this
Virtue that the fashionable ~~part of~~
Citizens of London were deterred from
Consulting him, by the Clamors excited
by ~~against~~ against his new Practice, by his
Medical Brethren particularly Dr
Morton. whom Dr Haller calls the Rival
and adversary of this excellent Man. —

4th Humanity discovers itself in pecuniary
Contributions as well as in Advice.

Dr Hebendons liberality to the poor was
so great that he was once told by a
friend that he would exhaust his
fortune — "No," said he" after all my
Charities I am assured I shall die Hume-
=fully Rich. Dr Fothergile was very
liberal also. — Dr H. knows — how many
hundreds perhaps thousands whom he
has fed, clothed and Rescued from Prison
and Death by his Charities will gaze
upon their benefactor in that Solemn
Day, While the Supreme Judge credits
them all, as done to himself in the
presence of an assembled World. —

III Paticulars —

1st In acts of Liberality to promote Science
particularly Medicine. Dr Fothergile
gave an hundred Guineas a Year to Dr
Priestly to defray the Expences of his Chemical Laboratory

He gave also to the Pennsylvania Hospital
the elegant Casts and Drawings of the
graved Utensils. —

2d Patriotism in Republicans has discovered
itself in Attempts and Plans to obviate
the prevailing Diseases of their Nature
Country.

3d Patriotism &c — by recommending
and patronizing Plans for promoting
Agriculture Commerce, Morals & Literature

4 By an Attachment to the independence
Peace, and Liberties of their Country.
Dr Tolbey ill spent Years of Anxiety in
fruitless efforts to prevent the Effusion
of Kindred Blood in the War which
seperated the United States from Great
Britain — Warren & Mercer both turned
their Backs upon profitable and Extensive

business, when they led their Countrymen into the field, and fell at the head of their Troops, bravely fighting for the Liberties of their Country. —

But there are certain Moral Virtues which have adorned the Character of Physicians, that should not pass Unnoticed in this place.

1. They have often discovered the most extraordinary instances of Candor in acknowledging mistakes both of Opinion and Practice. Hippocrates has left a testimony against himself of the loss of a Patient from his inability to distinguish between a Suture, and a fracture of the Skull. & Dr Sydenham tells us that he generally lost several of the first Patients whom he visited in a New Epidemic. —— This Candour

is the more Meritorious in Physicians
as it seldom fails to lessen their credit
in the World. —

2 — The most disinterested & exalted
Acts of Generosity, have often been
calumniated by Physicians to each other
Dr Friend was once confined for an
Heinous Act against the British
Government — During this Time Dr
Mead attended his Patients. After
his Liberation, Dr Mead called upon
him and gave him several thousan
Guineas. To the which Said Dr
Mead "They are not mine — I
Received them all from Your Patients,
this Act was the more meritorious as
they were competetors in business and
Fame. —

3d The most delicate Friendships have often subsisted between Physicians. Dr Fothergile & Dr Russell were great & intimate friends.

4th Physicians often perform spiritual Services to the families in which they are employed by directing the Education of their Children by preventing & healing Family disputes &c.

5. They often exhibit shining Examples of domestic Virtue — Dr Lipot was invited to Warsaw by the late King of Poland in order to become the Physician of the Court. he prepared immediately to accept the Offer but being told by his aged Father, that he would not accompany him, the Doctor declined the Royal invitation, and ended his Days in an obscure situation in his Native Country — One of the last Journeys of Dr Fothergill's Life was to pay a tribute of Respect to his Fathers Grave.

in Yorkshire—

From what has been said of the Vices and Virtues of Physicians the following inferences may fairly be deduced.

1st That their Vices are fewer in Number and of less Magnitude, than their Virtues

2nd, That the Profession of Medicine, favors the practice of all the Religious, moral & Social duties. A Physician of course who is a bad Man, is more inexcusable than a bad Man of any other Profession a Minister of the Gospel excepted.

3d That the aggregate Mass of Physical Misery that has existed in the World, owes more of its Relief to Physicians than to any other Body of Men.

Lect. VI

Upon the Causes which have Retarded the Progress of Medicine, and the Means of promoting its Certainty and greater Usefulness—

Delivd. Nov. 3d. 1803

1st. The first Cause I shall mention is connecting it with such branches of Knowledge as have but a slender relation to it— as Mathematics &c.—

2nd. The Neglect to cultivate those branches that are most intimately connected with Medicine— These are chiefly, Natural History and Metaphysics— In the former I include not only botany, Zoology & Physiology, but comparative Anatomy & Physiology.

3rd. The publication of Systems and discoveries in Medicine in the Latin Language.

4th An undue attachment to great Names

5 An Undue Attachment to unsuccessful but Fashionable Modes of Practice.

Thus Cool air & Cold drinks succeeded the hot Regimen in the treatment of the Small Pox. The same happy effects have attended the use of Bleeding in the inflammatory State of the disease, after Stimulating Medicines had been given to Cure it, for many Years to no purpose.

6. Indolence and Credulity in admitting things to be true, without sufficient Examination.

7 Neglect in Recording the Rise, Progress and Symptoms of Epidemic Diseases, and of certain Circumstances Practically Connected with them. —

8th Neglect to record minute Symptoms
in the history of Diseases

A Disease is a lawless Evil. To understand
its Nature from its Symptoms, it
Should be instructed every hour of the
day and Night.

10th The Neglect to ascertain the Nature,
and Strength of Diseases by the pulse—

11th The Neglect to employ the Passions
as Remedies in the Cure of Diseases.
An Accidental Paroxysm of Joy, fear,
or Anger, has often induced a Sudden
and favorable Crisis in Cases of doubtful
Issue.

12th An undue Reliance upon the Powers
of Nature in Curing diseases.

13th The Practice among Physicians of waiting
till Diseases have evolved their Specific

Characters before they prescribe for them — thus allowing them time to form those opinions, and obtain which frequently produce immediate Death, or a train of Chronic Complaints.

14th The great and unnecessary number of Medicines which are used for the Cure of Diseases — Did we prescribe more for their State and less for their Name, a fourth part of the Medicines now in use, would be sufficient for all the purposes intended by them. By thus lessening their numbers we should acquire a more perfect knowledge of their Virtues & Doses, and thereby Exhibit them with more success.

15th the Exhibition of Medicines without due Regard to the different Stages of Diseases. Barks, Opium, and Mercury, are Remedies or Poisons according as they are accomodated or not, to the Existing State of the System. Bathing the Infant in Warm Water often prevents a Fever in its Forming State. — The same Remedy when used after the Fever is formed, often induces delirium, and other Symptoms of an alarming and dangerous Nature.

16th An Exclusive dependence upon some one Medicine, or one Class of Remedies, — In England Cordial & Sweating Medicines; In France Bleeding, injections, and diluents, — In Germany Alterative Medicines — In Italy Cups & Leeches; In Russia hot & cold Baths; and in China fractions; constitute the predominating

and fashionable Remedies in all their
respective diseases.—

17th. The Neglect to inquire after, and learn
Cures which have been performed by
time, by Accident, or by Medicines
administered by Quacks or by the
Friend of Sick People.—

18th. The Neglect to dissect and examine
morbid Bodies after Death.—

19th. The attempts which have been made
to establish Regular Modes of Practice
in Medicine, upon Experience without
Reasoning, and upon Reasoning without
Experience.

20th. The dependent State of Physicians
upon public opinion for their Subsistence.

21st. The interference of Governments in pro-
hibiting the use of certain Remedies, and

enforcing the use of others by Law. —

22d Conferring exclusive privileges upon bodies of Physicians and forbidding Men of equal Talents and Knowledge under severe penalties from practising Medicine within certain districts of States and Countries - Such institutions, however sanctioned by Ancient Charters and Names are the bastiles of our Science. —

23; The Refusal in Universities to tolerate any Opinions, in the private or public Exercises of Candidates for degrees in Medicine which are not taught nor believed by their Professors, thus restraining a Spirit of inquiry in that period of Life which is most distinguished for ardour and invention in our Science. —

24th The last cause I shall mention, which has Retarded the Progress in Medicine is the division

of Diseases into Genera and Species by means of what has lately received the Name of Nosology.—

1st Nosology presupposes the Characters of Diseases to be as fixed as the Characters of Animals and Plants. but this is far from being the case.—

2d, The remote Causes of Diseases ale unite in producing but one effect, that is irritation and morbid excitement, and of course are incapable of Division. the proximate Cause of Disease is an unit; for wether it appears in the form of convulsion, Spasm, a prostration of action, heat, or cholera, it is alike the effect of simple morbid excitement. Symptoms Vary— In the most acute stage of inflammation in the Stomach, there is frequently no Pain, Vomiting, or Sickness— The Liver in the East Indies

undergoes a general suppuration and sometimes a partial destruction, without pain, or any of the common Signs of local inflammation. I have lost two Patients with Abcesses in the Lungs who Complained only of a pain in the head. Neither of them had a Cough, and one of them had never felt any pain in his breast, or side. Those diffuse sensations have been happily called by Dr Johnson "an intercommunion of Sensation" that the precise seat of a Disease is seldom known. The affections of the Bowells and Brain furnish many proofs of the truth of this Observation. — Errors in Theory seldom fail of producing Errors in Practice — Nosology has retarded the progress of Medicine in the following Ways. —

1st It precludes all the advantages which are to be derived from attacking Diseases in forming States. at which Time they are devoid of their Pathological Characters and are most easily and certainly prevented and cured—

2d It has led Physicians to prescribe exclusively for the Names of Diseases without due Regard to the Condition of the System.—

3d It multiplies unnecessarily the Articles of the Materia Medica, by employing nearly as many Medicines as there are Forms of Disease.—

Having briefly stated out the Causes which have retarded the Progress of our Science; it remains now that I

the means of promoting its certainty and
greater usefulness—

1st Let us strip ~~from~~ our Profession of
every thing that looks like Mystery and
imposture, and clothe Medical Knowledge
in a dress so simple and intelligible that
it may become a part of academical
Education, in all Our Seminaries
of Learning. Truth is simple respecting all
Subjects, but upon those which are
essential to the general Happiness of Mankind
it is obvious to the meanest Capacities.
after commenting upon the Facility with
which the Various parts of Materia Medica
Medicine might become a Subject of
academical Study — He desires us to take
a View of the Effects of Sympliciety which

has been introduced into the art
of War, by one of the Nations of
Europe A few obvious Principles
have supplied the place of Volumes
upon Tactics; and private Citizens
have become greater Generals and
Peasants more irresistible Soldiers in
a few Weeks, than their predecessors
in War were, after the instruction
and experience of Fifteen or twenty
Years — Could Changes equally Simple
and general be introduced by means
of our Schools into the Practice of
Medicine No Arithmetic could calc=
=culate it's advantages — Millions
of Lives would be saved by it. —

By thus recommending the general diffusion
of Medical knowledge by making it
a part of an academical Education
let it not be supposed that I wish to
see the Exercise of Medicine abolished as
a Regular Profession. Casualties which
render Operations in Surgery necessary,
and such diseases as occur rarely, will
always require professional aid; but
the knowledge that is necessary for
these purposes may be soon acquired;
and two or three persons seperated from
other pursuits, would be sufficient to
apply it to a City consisting of forty
thousand People. ——

2. To promote the Certainty and greater usefulness
of our Science, let us study the premonitory
Signs of Diseases, and apply our Remedies

to them before they are completely formed.
at this time they generally yield to the
most simple and common domestic
Medicines; for there is the same difference
between their force, in their forming state
and after they have put forth their strength
in the reaction of the System, that there
is between the strength of an Infant,
and of a full grown Man. — This
important truth has been long, and
deeply impressed on my Mind; and
many of you can witness, that I
have often recommended it to your
attention. To all Physical Evils I
believe there are certain precursors,
which if known and attended to
in due time, would enable us to
obviate them —

Premonitory Signs I am sure occur
before all Diseases. They are most
evident in Fevers, in the Gout, in
Apoplexy, Epilepsy, Melancholy and
Madness — They even obtrude themselves
upon our Notice as if to demand
the Remedies which are proper to annul
the impending Commotion in the
System. —

3d. Let our inquiries be directed with peculiar
Industry and Zeal, to complete the
Natural and Morbid History of the
Pulse. — The Pulse may very properly
be called the Barometer of the System.

4th and last means of promoting Certainty
in Medicine, and its more Extensive usefulness
is to Cherish a belief, that they are both

attainable and practicable. "Knowledge"
it has been justly said "is power and
Philosophy the Empire of Arts over
Nature" by means of the Knowledge
which has lately been obtained,
Men now visit the upper Regions
of the air and the bottom of the
Ocean, as if they were a part of
their original Territory.——

The Gout. Dropsies, hemorrhages, pul-
=monary Consumption are now cured
when they are treated as Symptoms
of general fever. Cancers are easily
prevented, by the extirpation of tumors
in glandular parts of the Body.
The Tetanus has seldom resisted the Efficacy
of Stimulating Medicines wherein

exclusive Reliance has not been had upon any one of them. but Modern discoveries have not stopped here. They have taught us to renew the Motions of Life where they appeared to be extinguished by Death. Hitherto, Resuitation has been confined only to Persons, who have been supposed to be dead from Drowning. or other accidents but the time I believe will Come, when the Labours of Science & humanity will be employed in recovering Persons who appear to die from other Causes. Death from a fever is induced by one or more of the three following Causes.

1st The disorganization of parts Specific to life, by means of great Excess of Morbid Excitement, by Congestion, inflammation, or Mortification.

2nd By such a change in the fluids, as renders them unfit for the purposes of Life.

3d By the Exhausted State of the Excita=
= bility, and Excitement of the System, which renders it incapable of being Acted upon by the Stimulus of Medicine — Death from the two last causes, rarely occurs in acute fevers, which terminate in less than eleven days.

when Life appears to be extinguished
by the sudden loss of Excitement or
expenditure of Excitability the
Remedies for Resuscitation might be
employed with Success - as where
Patients appear to die in the Paroxysm
of an intermittent or under the Sensation
of drastic Vomits and Purges.
Yes, the time I believe will Come, when
from the perfection of our Science, Men
shall be so well acquainted with
the Method of destroying poisons, that
they "Shall tread upon Scorpions and
Serpents" without being injured by
them. — It is by means of Principles in
Medicine, that a Physician can practice

with Safety to his Patients and Satis-
=faction to himself. They imput Caution
and boldness alternately to his prescrip-
=tion, and supply the want of experience
in all new Cases. Between such
a Physician, and the Man who relies
exclusively upon experience, there is
the same difference that there was between
Sir Isaac Newton, after he completed
his discoveries in Light and Colours,
and the artist who Manufactured
the Glasses, by which that illustrious
Philosopher exemplified his principles
in Optics.

20

On the Education proper to qualify
a Young Man for the Study of Medicine

Delivered Nov.r 5th 1792

Gent.n Suppose

a Being ~~just~~ born and educated
in one of the Planets but endowed
with Senses and faculties similar
to our own Suddenly to be transported
to our Globe, in a State of ignorance
of every thing he found upon it
and particularly of the Language &
other Means of communicating knowl=
=edge, which were peculiar to
its inhabitants. In this new Situation
I ask what Measures he would

take to become acquainted with the productions of our Globe; with the Physical Laws which governed it; with the Manner in which its inhabitants subsisted; with their individual and Collective history and with their future destiny after the termination of their present Existence. The Answer is

He would first make himself acquainted with the Language of the Country upon which he alighted. He would acquire at the same time a Knowledge of the Names of those Natural and Artificial Substances on our Globe which are obvious to the Senses. he would aptly

himself to study the arts of reading and writing, and the most popular and useful languages. ——— Having filled his Mind with these branches of Knowledge, he would next direct his inquiries into the Laws of Matter, as they are unfolded by Phylosophy; and lastly he would conclude his researches by investigating the origin, Nature, & future destiny of that Being, who occupies the first rank on our Globe. In some such Natural order, the Studies of every Young Man should be conducted who intends to devote himself to the Study of Medicine. I shall briefly but more particularly

Repeat the Names of the Studies
and endeavor to Shew the Necessity
and importance of each of them.
The Senses are the first Avenues to
Knowledge which open in the
Mind — Things therefore, which
are obvious to the Senses, should
be the first Objects of Education.
These are either Natural or Artificial
The Natural Objects are the Animal,
Vegetable and Fossil, Substances
which surround more or less every
person that comes into the World.
The Artificial Objects are such things
as are composed, by the ingenuity
of Men, out of the products of
Nature & Employed by him in the

common purposes and business
of Life. — In favor of this early
Mode of teaching Natural History,
it is worthy of notice, that it was
pursued by the Creator of the World
in the Garden of Eden in the
Education of the Father of the
human Race. — The next Object
in the order of Nature, which engages
the attention in early Life is the
description of foreign Countries.
Reading, writing and Arithmetic.
The writing a fair and legible hand,
is an essential part of a preliminary
Education for a Physician. — The
Advantages of it have not been duly

appreciated. It is much more than
an elegant Accomplishment.
Hence Dr. Beattie has well remarked
"that writing in a good hand, with=
=out Contractions' with a dark colored
Ink. Exactly pointed and spelled—
in straight lines, with a moderate
Space between each of them, and
properly subdivided into Paragraphs
is better remembered than what
we Know together in Companies.
For by all these circumstances
attention is fixed, and the writing
being better understood, makes
a deeper impression. ———
Besides Many Disadvantages attending
the Writing of a bad hand. Such

It is particularly to in Medicine
where dangerous mistakes have
taken place in Many instances
a Person was killed in London by an Apothecary who
mistook a prescription of Vitrum
antimoniale for Vitrum Antimonii
and I have heard of aqua fortis
being added to a Julep instead
of Aqua fontana. both Prescription
were written in a careless hand. —
The Mind of a Man pervades every
thing he does and says. It appears in
the figure of his house, and even in
the Colour and fashion of his clothes.
Much more does it appear in his
handwriting — hence Lavater has justly
observed that he who writes an illegible
hand, is Rapid — & often impetuous in his judge=
=ments. —

Arithmetic is to the Eyes and Ears what the Sense of Touch is to the whole Body. A Young Man ought to be exercised in the Use of Numbers Until he completes his Academical Education.—

Geography - particularly that part which includes the History of Climates, Weather, Soils, and the Local Situations of different Countries to Rivers, Seas, and Mountains - and while attending to the Physical History of the Globe, he should read such Books of Travels as contain Accounts of the Food, Medicine Dresses, Manners, Amusements & Religions of different all of which he will find intimately Connected to y Causes & Cure of Diseases.

The french and Jerman Languages
should be the next objects of his
attention. They are deep and extensive
Repositories of Knowledge in all
Sciences and particularly in Medicine
Great advantages will arise, to an
American Physician, from learning,
not only to read, but to Speak them;
For the United States will probably
Continue, for many Years, to attract
Citizens of every description from
France and Germany. These two
Languages will be learnt and easily
acquired by the Jun. Grammar Rules,
when forced by themselves upon the
Memory, Create so much delay & disgust

that nine out of ten of the Young
Men, who are taught them, quits
their teachers long before they come
to the application of those Rules to
the Languages. The Italian Language
Contains many Excellent Books
upon Medicine; and after the acquisition
of the french it may be learned
with ease in a Month or Six Weeks.
provided no time be lost in Committing
Grammar Rules to Memory. —
Afterwards the Mathematics — to a
Knowledge of these should succeed
the history of the Laws of Matter
as unfolded by natural Philosophy,
and the Study of the faculties &
=.

intimately Connected to y Causes & cure of Diseases.

Operations of the human Mind, called by the unpopular Name of Metaphysics. with this branch of Knowledge it is common to connect the Study of Moral Phylosophy. I object to ~~this~~ its being Made a part of academical education. it was originally introduced into Christian Colleges from Pagan Schools and has constantly tended to impress a belief of the independence of Morals upon Religion. A Course of Lectures upon the evidences, doctrines and precepts of Christianity, will not only supply its place, by legitimating its Objects, but will Expand the Mind of our pupils by fixing it upon the most elevated Subjects of human Contemplation.

History, Government, Poetry, drawing
the Principles & English Grammar,
and every other branch of polite Liter-
ature should be studied by a
Young Man who is intended for
the Profession of Medicine. ——
The Poets in a particular Manner
should be read by him with
attention. They turn every Faculty
of the Mind inside outward, and
bring to light many things in
its Operations, which elude the most
[a] Phylosophic
Langcid eye of ~~the~~ a
In this we have a remarkable
Example in the Tragedy of King
Lear, in which Madness is described
with more Accuracy, than in any

intimately Connected to y Causes & Cure of Diseases.

history of that Disease that has ever
been published by a Physician.
A Knowledge of drawing would
be more than an Accomplishment
to a Physician — It will be service
by enabling him to preserve copies
of Plants and Animals, and of
such preternatural appearances
as occur in Morbid Bodies —
The Study of English Grammar, —
In Conversation, in writing for the
Pulpit, and in his written instructions
to his patients, a want of Correctness
and Perspicuity will expose him
to Suspicion & equal deficiency
in every branch of his Profession.
Extempore Speaking in debating Soci-

=ctie, and in translating Passages
from foreign Languages.
~~Composition~~ He should exercise a
talent for invention by the different
Species of Composition. A Young
Man may become learned by instruction
but he can be made wise only by
the exercise Operations of his own
Mind— He thinks, a knowledge
of the Latin and Greek is not
indispensably necessary — but think
a Year or two spent in this Study
of them would be sufficient. —

Let not the Advocates of ancient learn
= ing ascribe to me a want of taste
in recommending this superficial
acquaintance with the ancients
Masters of Poetry and Eloquence.

intimately Connected to y Manners & Laws of y Nations.

Human Life is too short, and the
Study of Medicine too extensive,
to waste Years in learning that
which only intended to amuse, and
which can never be applied to usefull
and practical purposes in our Profession.
Nor do I contend for the acquisition
of a critical Knowledge of the Latin
and Greek Languages in our Seminaries
of Learning. Let them like Travelling
become a part of the Luxury of
education. ——— I shall con=
=clude this Lecture by remarking,
that it is never too late to learn that
which is Necessary to be known —
Dr Franklin learned to write a
fair and legible hand, after he was

thuity: and Sir John Pringle corrected
a bad Head after he was sixty —
Macklin the Player learned several
Languages after he became an
old Man — Many of the Sciences
have been acquired by Men after
they have entered upon the Duties
of public and Professional Life

intimately Connected to y Causes & Cure of Diseases.

Lect: viii

On the Construction and Management
of Hospitals — Delivd Nov. 10th 1802

He laments that private charity is so limited in its Objects, as to lend to Hospitals necessary — after stating how agreeable much more it would be to Persons in Sickness to be nursed in their own Homes by their own Families &c &c He says the Extremes of Rank would thus be united; and Poverty (by not being exposed to the public Eye) be Relieved from one of its greatest Evils. — A State of Society, in which these Events shall take place, has been predicted in the old and new testaments; and sooner or later will come to pass —

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In fixing upon a Situation for a Hospital, a regard should be had to air & Water. it should always be placed at such a Distance from a City as to profit the benefit of pure air, and of a Currents of Winds from every Quarter. It should likewise be at a distance from all Sources of putrid exhalations whether from Marshes or unwholesome Manufactures. The quality of the Water, which is to be used in a Hospital, should be ascertained before its foundations are laid. for upon its purity, much will depend of the influence of the Hospital, upon Health & Life — If a Hill be

intimately Connected to y Causes & Cure of Diseases.

be chosen for the Site of the Hortus, perhaps Such a declivity may be pre-ferred for it, as will favor the Conveyance of Water from a Well upon its Summit - to all its apart-ments in a manner and for purposes to be mentioned hereafter.

In the Middle Climates of America, the fronts should always be to the South - A single Building should always be preferred to a double one as affording a more easy passage of Currents of Air through it. The Ceilings should not be less than 15 feet high - In John Bainge preferred Churches for Hospitals on account of the high Ceilings - Garret Rooms of the Common

height should be avoided - they
are generated and spread a Typhus
fever in the Pennsylvania Hospitals.
If they should be judged necessary
they should be included in what
is called an attic Story. The principal
part of the house should be divided
into large Wards of equal sizes.
Connected with them, there should
be a few small rooms for the
reception of those Patients whose
Cases require Privacy and for
such Persons as have been reduced
from their ranks in Society and
to whom being exposed to the Company
and even sight of Strangers, would
occasion Mortification & Distress.

intimately Connected to y Causes & Cure of Diseases.

There should likewise be in every
Hospital three or four Small Rooms
so contrived as to be made completely
dark for the Accomodation of
Persons with acute inflammation
of the Eyes. The Wards should be
limited to different Diseases. There
which are appropriated to the
Pulmonary Consumption should
be warmed in Winter by means
of Stoves so regulated as to cause
the heat to resemble the Temperature
of those Climates which are most
favorable to Diseases of the Breast.
The seven Wards should have earthen
floors. The first Account of their utility

~~is to be found~~ in preventing and absorbing human Miasmata is to be met with in Count Saxe's Theories. It was communicated by Col Ward of Massachusetts to Dr Filton by whom they were introduced with great advantage into the Military Hospitals of the United States during the Revolutionary War. The Windows in a Hospital should be large but not numerous, by these means it will be cool in Summer and warm in Winter. They should descend to the floor; and the upper sash should be made to be pulled down, as well

intimately connected to y^e causes & cure of diseases.

as the lower one to be lifted up.
Thus fresh air may be admitted, and
foul Air discharged without exposing
the Sick to its Current in either
direction. They should be provided
with Shutters so as to increase and
lessen the at pleasure the quantity
of Light. The Staircase should
be well lighted with Windows
made in the same Manner as
those which are used in the Wards.
The lower floors (the fever Wards
excepted) should be of Wood.
Bricks should never be used
for that purpose, upon the account
of their disposition to retain filth,
between their interstices.

In every Ward there should be a Ventila
= tor communicating with the external
air to carry off the foul air in cold &
Cold Weather. Perhaps an Opening might
be made by taking away a pane of
Glass from the highest Row of the upper
Sash of a Window and placing a piece
of Wood in its Room, capable of being
depressed and elevated, by means of
a String that should reach to the
Middle of the Window. ~~and plain~~
This contrivance is very common
in the Stove Rooms in Germany, where
it has obtained the Name of a "Was
is das" or "What is it" from that
Question being generally asked by
persons the first they see it.

intimately Connected to y Means of Warmg Rooms.

Great advantages would arise from
seperating the Patients in large Wards
by means of Wooden partitions,
elevated about six or eight feet from
the floor, and open above so as to
admit light and carry off impure
air— The sick would thus be less
disturbed by each other and the delicacy
Habits of domestic life be better pre=
=served—
The Wards should have Specific Names
painted over their Doors. The Names
of the Patriarchs and Apostles have been
prefered for this purpose in St. Thomas
Hospital in London.
The Names and the Diseases of the Patients
with a few exceptions, should be written
upon a black board and hung over their
Beds.

Besides the Wards and private Rooms
that have been mentioned, there
should be in every Hospital —
the following distinct Apartments.

1st. A large Hall into which such
of the Patients as were able to leave
their Beds should eat their Meals.
Health Pleasure and decency also
conspire to make this apartment
necessary. it might serve likewise
for a place of Worship.

2nd An Apothecary's Shop: in which
should be kept all the Surgical
Instruments as well as the Medicines
of the Hospital.

3rd. A Room formed in the Manner of
an Amphitheatre for Surgical Operations.
it should be as remote as possible from
the Sick Wards.

intimately Connected to y^e Rooms of Lunatics.

4th Rooms for the different Kinds of
Baths and for some of the modes of Exercise
to be mentioned hereafter; also for
Containing Wood and Coal.

These Rooms, and these only, Should
be under the ground floor of the
Hospital. The bath rooms Should
be warmed by a Stove in Winter,
and Should be so large, as to admit
of Patients resting or Exercising in
them an hour or two after using
the Baths, before they expose them=
=selves to the Cold air.

5th A Room for the reception of Curiosities
I once saw with great pleasure, a
Female museum in the infirmary
of Liverpool, all the articles of which
were deposited there by Patients as
Expressions of their Gratitude.

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6th A Dining Room & bed rooms, for all the Officers of the hospital.

7th A Room in which the bodies of such of the Patients as die in the hospital should be kept previously to their in=
=terment. This room should be so private, as to admit of a dead body being examined, to discover the cause and seat of the disease which destroyed it, without the knowledge of the surviving Patients.

8th A large and commodious Room in which the Managers and Physicians & Surgeons of the Hospital should meet to transact their respective business. The use of each of these apartments should be inscribed over their respective Doors.

intimately Connected to y^e causes & cure of diseases.

The Kitchen, Bakehouse and Washhouse should be at some distance from the hospital. to prevent fire, & Smell of food. There should be two privies one for the Male, the other for the female Patients, at a moderate distance from the Hospital, and so placed as to be out of sight of each other, & if they adjoin they should be accessible by private avenues peculiar to each Sex. This Contrivance will be found not only to cherish delicacy in Women, but to favour their Health; for many of them I believe, both in private houses and Hospitals, prefer suffering from costiveness, rather than expose themselves in a Walk to a privy, to the sight of one Sex. There should likewise be a privy exclusively for the Venereal Patients. —

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A Piazza above the first and Second
Stories on the South Side of the
Hospital for the Patients to take the
Air in —
Near the Hospital there Should be
a Garden filled with fruits of different
Kinds for the use of the Sick.
There Should likewise be walks
Shaded with forest trees around the
whole House.
The furniture of each Ward Should
Consist of Beds, a Water Closet, two
or closestools, bedpans, a Warming=
=pan and a number of Spitting
boxes. The Beds Should be made
of Hair: this is preferable to Straw
upon two Accounts. It prevents
the Stink when involuntarily dis=
=

intimately Connected to y^e Causes & Cure of Diseases.

charged by Sick People to pass readily through it, and when from accident or neglect it becomes putrid, it is less apt to produce disease than a putrid Vegetable Substance.

Bedsteds made of Iron or painted Wood with Casters on the Posts at the lower end so as to be more easily moved—

For Patients in the Dysentery, or in Fevers in which the Faces are discharged involuntarily a covering of Oil'd Leather over the Bed has been strongly recommended by Dr Donald Monroe.

It is easily removed Washed and Dried and may be used a dozen or twenty times a Day.

For Medical purposes there Should

be two sets of Cold and Warm baths
for the two different Sexes. as heat
differs in its effects upon the body when
applied through different Mediums,
there should be contrivance, to apply
it by means of Vapour, air, and Sand.
There should belong to every Hospital,
an electrical Machine, a Thermometer
to Regulate the Temperature of the Baths
and Wards so as to accomodate
them to the different States of Disease
and different Modes of Exercise—
There last should consist of a Chamber
Horse, the Instruments for playing
Shuttlecocks, two or three Small &
Common instruments of Music,

intimately Connected to y Causes & Cure of Diseases.

a Swing, tools for Cutting, Sawing
and working in Wood and in
the Garden; and when practicable
a Horse and Chair or coachee - D.o
Cooper appreciated the advantages of
this Kind of exercise so highly that
he bequeathed a large portion of
his Estate for the purpose of pur=
=chasing and maintaining a Carriage
and two horses for the use of the
Patients in the Pennsylvania Hos=
=pital.

The Officers of a Hospital should
Consist of a Steward, Matron, a
house Surgeon, and an Apothecary
with one or two Mates, Cooks and

two Nurses.

other Servants and attendants
upon the Sick. Women says Mr
Howard, should always be preferred
for the last purpose that can be
Mentioned. They are better acquain
=ted to the modes of preparing Diet
and Drinks than Men; and in
humanity, wether it consist in
Sacrifices of Sleep, or bearing with
Patience the peevishness of sick
people, they have greatly the
advantage of our Sex. There
are cases, however, in which
Men should be preferred to
Women as Nurses. There are, where
great resolution & perseverance are

intimately Connected to y^e cause & cure of Diseases.

Necessary to enforce Submission to
the prescriptions of the Physicians.
All the Offices should be filled by
Persons that are single / or if married
their Children, if they have any,
Should not be permitted to reside
in the Hospital. ——

For the Amusement and instruction
of Patients in a Hospital a Female
Library should by all means com-
-prise a part of its furniture. The
Amusing Books should consist of
Travels - they are extremely calculated
to Convalescents and to Persons con-
-fined by Chronic Diseases. The
Books for conveying Knowledge

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and Mental Improvement.

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should be upon philosophical, moral
and religious Subjects. —

In many Hospitals in Europe there
are Clergymen. But in the U.S.
it will be better to open the Doors to
Clergymen of all Denominations.
as Young People are sometimes the
Objects and are often detained by
Diseases a long time from School
one or two Suitable Persons, should
be selected from among the most
Patients who should give them
Lessons every day in Reading, writ-
-ing or Arithmetic according
to their respective ages.

One or more Newspapers should
be taken for the Use of the Hospital

intimately connected to y causes & cure of diseases.

after they have been read by its
Officers, they should be sent into the
different Wards.

The Government of Hospitals and the
Care of the Sick should be committed
to Managers and Physicians shown
in such a Manner as shall best
promote the interests of the institution
There should be laws for preventing
immoralities of every Kind, Gaming
should be forbidden; & Strong Drink
should never be tasted, unless pre-
=scribed by a Physician. —
Swearing and indecent Language
should not be tolerated and even
loud talking and laughing should
be restrained. The Women & Men

and Married Rooms.

should not be permitted to leave
any intercourse unless by Special
permission — No Patient should
ever ask for Charity in Money,
Tobacco, clothing, or food. The
Punishment for these offences should
be different. Expulsion should
be inflicted only after Constant
modes of Reformation have
been tried to no purpose. —

Of Maniacs —

They require a Seperate institu-
-tion for them — They should be
Confined in distinct Rooms or
Cells where they cannot injure
or disturb each other —

intimately Connected to y^e Causes & Cure of Diseases.

the head of this institution, and all
who are concerned in the Care of
the unfortunate tenants of it should
be persons distinguished by their
Knowledge, Resolution and humanity
They should know the art of
Governing Mad People by discovering
all the Motives which act upon
them. — In short they should be
their friends and companions and
should not only abstract them from
their Cells, but seduce them by
exercise, Labour amusements,
and conversation, from the Subjects
of their derangement — They
should likewise be Judges, & be
Certain Offences to Lenient punish-

and Mental Resources.

=ments consisting chiefly of privations
of Liberty and of the pleasant parts
of their food. — By the skilful
application of these means the
Keepers of private Madhouses in
England who are generally Physici
=ans or Clergymen, perform more
Cures under equal circumstan=
=ces than are performed in most
of the Lunatic Hospitals in that
Country. In Hospitals in which
Maniacs are received in common
with other Patients should have
small cells in their Neighbourhood,
in which the former should be
Confined during the highly excited,
and noisy State of their Disease

intimately Connected to y^e Causes & cure of diseases.

in order to prevent their contagion
or disturbing other Classes of sick
People.

Hospitals have in many instances
Created diseases, and produced the
Mortality of such as seldom prove
fatal in private practice. This
has in a more eminent degree been
the Case in Military Hospitals —
they were the passports to the Grave
of nearly one half of all the Soldiers
who perished during the Revolutionary
War of the United States. — This
is not the case however in the loyal
infirmary of England —
The means for preventing Death in
Hospitals, and Rendering them useful

and Mineral Kingdoms.

in the highest degree in Restoring
Health consist chiefly –

I. Of Pure air and
II of Cleanliness.

and 1st. The Wards should never be
Crowded – Sir John Pringle's rule
was to have the Wards so large
that a Stranger should say,
then was Room enough to con-
= tain three times the Number of
Patients he beheld in them. –

2nd Persons in the same disease
Should be confined to the same
Ward. a Sore Leg has often put on
a disagreeable appearance, and
Operations in Surgery have sometimes

intimately Connected to y^e Causes & Cure of Diseases.

terminates fatally in consequence
of being exposed to the atmosphere
Created by Patients in a fever.
and fevers have been generated
by the foul exhalations of sores
and Ulcers -

3d The Doors and Windows of the
Wards should be kept open
in Warm Weather. In cool weather
the foul air should be conveyed
out of the Wards by means of a
Ventilator and by keeping small
fires in an open Chimney. This
renovation of air is more necessary
in the fever Wards than in any
others; for which reason the beds
should be removed from the Walls

and Marshal Kingdoms.

to which impure Air is apt to adhere
so as to reproduce disease. —
This direction is founded upon a
fact to which an accident gave
birth during the late War with
Great Britain. — In one of the
Military Hospitals an unconmon
degree of Mortality was observed
to take place among the Patients
who had the Dysentery. A black
Soldier remarked to Dr Beardsley
the Physician of this Hospital
that none died, but those whose
bunks were contiguous to the
Walls of the Hospital — The Doctor
was struck with the truth of this
Remark and instantly removed

intimately Connected to y^e causes & cure of diseases.

Lech: II

On the Pleasures of the Mind.

Those faculties of the Mind, the Exercises
of which are to be mentioned as the
Subjects of Pleasure, are
Memory, imagination, understanding
Will, the Passions, and the moral
faculties. To these I shall add
a few remarks upon the pleasures
we derive from association and
Consciousness. The pleasures of
the Mind are also of a medicinal
nature; and have often cured
Diseases which have baffled the
most powerful Remedies, that
have been taken from the Vegetable
and Mineral Kingdoms.

They have further the great advantage over most of them in being cheap and at all times agreeable to Sick People. —

By means of the faculty of the ~~Soul~~ Memory we command as it were the Joys that have gone down, to live again. We converse with departed friends, and enjoy in recollection all our past pleasures. &c — It is by means of this faculty, that we Know and distinguish our Homes, our wives, our Children and our friends. &c —

Imagination — Creation is the business of this faculty — It gives to absent objects, the Airs of ~~true~~ Real Life — It combines images & Pleasures in a thousand ways.

one while it raises us to the
pinnacle of military & literary fame.
and again places upon our minds
us or popular Assembly and bids
us view thousands listening with
rapture to our Eloquence. —
in short we by this faculty ride
in balloons and build castles in
the air — The strongest proof of
the Pleasure which the gratification
of this faculty is capable of affording
is furnished by the history of the
Poets. It appears that most of
them have been poor and unfor=
=tunate in Life, owing wholly
to their Giddiness to the transporting
pleasures of their imagination.
at the expense of those means of
subsistence, which with the talents

they possessed for other things, would have insured them Wealth and independence. ——

Understanding. The Pleasures derived from it are of the most sublime and delicate Nature— They consist in the investigation and discovery of truth in all arts and Sciences: Now truth is so congenial to the human Mind, that it cannot be perceived with out Pleasure— even the fictions of Poetry, Horace tells us, should be made to resemble it in order to render them agree=able— Archimedes in the midst of Company, when he had demonstrated a difficult Problem could not refrain from crying out Eureka Eureka,

Mr Rittenhouse fainted upon perceiving the transit of Venus on the 3d of June 1769. that I do not believe Mr R.

Lord Mansfield declared that in all his long protracted Labors and Watchings at the bar, and upon the bench, he never knew what thirst and hunger were, owing to the stimulus of pleasant thoughts overcoming those sensations.

The Pleasures of novelty belong chiefly to the understanding. They are felt by travellers in the highest degree but ancient and modern history, Wars, Revolutions, and new Events of all kinds afford a larger supply of this Pleasure. —

It is worthy of Notice and Gratitude to the Supreme Being, that the Pleasures of the understanding have no Antagonist in Pain. While the Acquisition of Knowledge gives Pleasure, Pain is not the necessary Consequence of Ignorance and of the inactivity of the understanding. The

"Wise is happy, Nature to explore;
"The fool is happy that he knows no more."

The Pleasures of Taste embrace order and proportion in Architecture. Variety and arrangement in Perspective; Colour, Expression, and proportion in Painting; three unities in dramatic Performances; and Order, Grammer,

harmony, and correctness of imagery, in Composition, both in Verse & Prose. the Pleasure of taste has in some instances been so exquisite a nature as to produce Syncope. Octavia fainted upon hearing those Verses in the sixth Eneid of Virgil in which he foretold the future glory of her Son—

Vile — The Pleasures of which consist in contemplating the mysterious union of free agency and necessity in all its Operations. We are barely pleased with what we understand; but the Exercise of Admiration is necessary to our intellectual Happiness; and this can be employed only

upon subjects ~~beyond~~ which are
removed beyond our comprehension.
Were the human mind devoid of
Mystery in its texture and oper=
=ations, it would stand alone
in the works of the creator;
and however strange it may sound
I believe the happiness of the saint
and the Philosopher would both
be at an end, were it possible for
them to comprehend all the
Mysteries of Religion and Nature.
Perhaps perfection in Knowledge, as
well as in Virtue, may be denied
to finite Creatures to all eternity
as the necessary Means of their happiness;
and that the great first Cause may
appear forever to be what he now is
the only wise and perfect Being.

The Exercise of free agency affords the
greatest pleasure — wrings the Sacrifices
we make for the attainment and
preservation of liberty. it was also
manifested in a Slave who was sold
a few years ago in the Delaware
State. A Gentleman who attended
the Sale being pleased to the black
purchased him and immediately
declared him to be a freeman.
The emancipated Slave fainted
in a fit of Joy and was with
difficulty recovered from it.
A Belief in the Will acting from
Necessity, has likewise its pleasures.
It disposes us to View the hearts of
all the Men that move our World
by their Power or their talents, as
void of the direction of a wise and

good being; and it assures us, that all the events that Relate to our individual happiness, wether from Moral or physical causes, are in his hands; and that his hand in every event. we act most freely when we act most necessarily, and most necessarily when we act most freely.

The Passions are an inexhaustible Source of mentare Pleasure, particu-
= larly those which are accompanied with Desire: such as hope & Love. the former feasts upon all possible good; and the latter when pure and reciprocal, creates a little heaven upon Earth. The domestic affections &c -

The News of the birth of Children
he says always affords pleasure
any addition is made to this pleasure
by observing the Opening of their Minds
in Speech and of their Lips in
Speech. The unfortunate Mrs
Robinson in the history of her life
has given us a beautiful example
of the latter of these pleasures
She took her only Child out one
Evening to observe the full Moon
(a little Girl about eleven months
old) Suddenly it was obscured by
a Cloud Instantly the Child cried
out "all gone" These were the first
Words that She had uttered. The
Rapture of the Mother exceeded
all description. —

Moral Faculties —

It would require a pen, made of a quill plucked from an angels Wing, to describe such of them as are pure, in a Manner equal to their Sublime and heavenly Nature. The Pleasures of the Moral faculty Operating in acts of Justice and benevolence, embracing friend, Country, the whole world; past and future generations; Unite more ale intelligent beings; for in this Consists the perfection of Virtue. those Pleasures are only exceeded by those which arise from the exercises of the Sense of Deity in the love and adoration of the fountain of ale perfection;

and from a conscience at peace
with itself, and void of offence
towards God and Man. —
The intensity of the pleasure which
is derived from these Sciences with
appear more striking whenever at-
=tend to its effects in destroying
bodily Pain. To doubt the accounts
that are given in ecclesiastical
history of the Joy of the primitive
Martyrs to Christianity, in flames
of fire, and in the fangs of wild
beasts, is to call in question an
obvious truth in Physiology —
It is strictly agreeable to one of
the Laws of Sensation formerly
mentioned.
I spoke formerly of the perversion

Of the Senses and of the artificial
Pleasures which some People
derive from nauseous tastes
and fatid odors. The same
thing takes place in the moral
faculty; properly so called—
Hence we observe many People
to derive great Pleasure from
the gratification of Pride, injustice
Oppression, Malice & Revenge.
I know it is commonly said
this Gratification is accompanied
with Pain— but this is not the
Case or it would not be so general
in the World— Persons under the
influence of those Passions and
all the acts that are dictated by
them sometimes discover the pleasure

they excite, in exultations, Smiles,
and even bursts of Laughter.
Vice in all these cases usurps the
Motions of the benevolent and
pious Passions. But a perversion
of the Moral faculty Rises to
such a height in Some instances
as to seduce one or more of the
Senses to act with it.
This is obvious in all such Persons
as take delight in seeing public
Executions. There was a man
in Paris in the Reign of Robespiere
who declared that the most delight
=ful music he ever heard was the
Sound of the Guillotine; and we
read of a certain John Ward, a
Member of the British Parliament
in the Reign of Queene Anne

who was confined in Jail for fraud
and Perjury, whose only pleasure
Consisted in giving Poison to Cats
and Dogs, and witnessing the
Pain and Convulsions with which
they expired — These instances of
Depravity Do not belong to the
Ordinary Character of Man.
They are as much the Effects of
Morbid Idiosyncracy, as a Relish
for fætid Odors, or putrid meats
is, of the same State of the Senses
of Smell and taste. —

The Pleasures of agriculture — How the
Memory, Imagination, renders tasteless
the taste and even the moral
faculties, in all their various
Operations, are highly Dignifiedly gratified.

a Relish for this pleasure is as natural to us, as a Relish for the pleasures of Sight and Sound. Nor can it be subdued in the human heart; hence we find the rich Citizen, the War worn Soldier, and the Sea beaten Mariner are seldom satisfied with their attainments in Wealth and Fame; but please themselves constantly with the expectation of concluding the Labours and pleasures of their Lives, by cultivating a Spot of Earth. —

Conversation —

From an Association of Ideas — we derive pleasures of an extensive and peculiar Nature.

The Dr. in illustration of this gives an account
of an African who went to see a
Lyon as conducted as a show in
N. Jersey — upon seeing it he
was transported with Joy, which
he vented by jumping, dancing,
and loud acclamations. He had
been familiar with that animal
when a boy in his native country,
and the sight of him suddenly
roused upon his mind the recol-
=lection of all his enjoyments from
Liberty and domestic endearments
in his own Country in the early
part of his Life. The pleasures
(happily) from Association have no
in old age
Antagonists in Pain (like those of the
Understanding) which makes
the decline of old age pleasant —

for in old age the Memory Retains
a Vivid Recollection only of the
events of Childhood and Youth;
of course it can never revive by
Association, the Copes, disappoint=
=ments, treacheries and persecu=
=tions which usually embitter
the Middle Stage of Life.
The Kindness of Heaven in this
Constitution of our Memories deserves
our Gratitude. Were it otherwise,
our Last days would be marked
with Nothing but Misanthropy or
tears. —

Consciousness — The Pleasure of
which is confined chiefly to a
Sense of our existence, and of our

personal identity. The latter may be conceived of from a single fact. There never was a man who was willing to change his own mind for that of any other person however willing he might be to exchange his condition, limbs and face with him, of course there is a constant pleasure in being what we are. —

~ The Exercises of these faculties in others.

Memory. Thos Fuller a black slave in Virginia received frequent rewards for amusing strangers by exhibiting the strength and extent of his Memory in figures.

Imagination - The late Lord Chatham
and Mr Burke and the present
Mr Canning & Ireland stand unri-
= valled for the pleasures excited
by the force, Variety, and imagery,
of their imaginations, discovered by
the two former in their Speeches in
the British Parliament, and by the
latter, at the Irish Bar. ——

~~It is impossible to reflect upon the~~

But great as the Pleasure is we
derive from surveying an extensive
and splendid imagination, it is feeble
compared with that which we enjoy
from attending to the Operations of
a Vigorous and comprehensive
understanding, whether it appear in
the quick exercise of Genius, or in

the more slow and perceptible acts
of Judgement and Reasoning.
It is impossible to reflect on the
gigantic Intellects of Sir Isaac
Newton, D.r Haller, and D.r Johnston
without feeling a pleasure similar
to that which Travellers describe
from Viewing a stupendous Moun-
tain, whose Summit is invisible
from its height, and which seems
to diminish the size of all the Objects
around it. —

While we are pleased with its
Operations in other People, with
they appear in the form of free
Agency or Necessity. we bestow
upon the former the honorable
Epithet of Independence and we

are pleased in Considering the Calle
as directed by an infinitely wise
and just Being in Such a
Manner as to render General
Happiness the Result of all the
Operations. —

But how feable are our emotions &
Pleasure upon hearing the Names
of Fuller, Chatham, Banks, Curran
Newton, Haller, & Johnston, who
Charmed and astonished us by
exploits of Memory, Imagination,
and understanding, compared
with the delightful Sensations
we experience from hearing the
Names of the philanthropic &c.
Howard and the Godlike
Anthony Benezet!

The Proximate Cause of the Pleasures
of the Mind — They are the Effects of
impressions of a certain definite or
moderate degree of force, accompanied
with motions of a regular or
harmonious nature in the brain
and heart, and communicated
by them to the Mind. — That is
the case I infer from Dissections &
discover marks of undue and
irregular excitement in the Brain,
and of Ruptures or Disorganization
in the heart, when Death has
been the consequence of an excess
of intellectual or Moral Pleasure.
The final Cause of the Pleasures
of the Mind is very plain — They
were intended to beget Activity,

to prompt to Study and to excite us to do good and be good. Pleasure follows the acquisition of Knowledge and the Exercise of the benevolent and pious affections, by an eternal and unchangeable institution of our Natures.

By a happy constitution of the Mind Repetition has the same effect in rendering certain disagreeable impressions upon it agreeable, that it has upon the Body. Grief after a while softens into a pleasant Melancholy. Disappointments in Love and ambition have often produced the most settled habits of Virtue and good

Conduct. Dr Paulby said he always felt unusually happy the day after he met with an affliction of any kind — by the same Law of Reason we may explain why distressing sights become pleasant and agreeable by repetition. It is owing to the Diminution of impression upon the Mind from the grade of Pain down to the grade of Pleasure. It is remarkable that those pleasures of the Body and Mind which become pleasant, after having been painful, take a much stronger hold of our Senses and Passions than those that are originally pleasant — For example

Men who are attached to Tobacco,
garlic, & Rum, prefer them to Sugar,
& and endure more pain from the
want of them than the common
necessaries of Life. In like manner
an ugly Woman when beloved,
is an object of a more violent &
lasting attachment than a handsome
Woman. Also certain Studies and
employments originally of the
most disagreeable nature, to
become agreeable by habit. but
further; we observe certain moral
actions that are performed at first
with difficulty, and even disgust,
become by repetition more pleasant
than such as were performed originally
with pleasure. Dr Horn relates

an instance of a Man in whom
the thoughts of Death and Judgement
were wont to produce the utmost
horror, by appropriating a certain
portion of his time to meditating
upon them, they became less terrible
to him and finally in the course
of a few months, they not only
ceased to terrify him, but the thoughts
of them became a source of his great
est Pleasures— These facts suggest
a very important truth in Morals.
They teach us that good, when
known through the medium of Vice
is productive of the greatest quantity
of happiness and that too of the
most durable nature, Constituted
as we are we should have been

less happy without it. They suggest further the importance of defending Children from Spectacles of pain and Misery, not only in their fellow Creatures but in dumb Animals, lest by Repetition they should become the Sources of amusement or Pleasure.

I shall dismiss the Subject of the Pleasures of the Senses and the Mind by asking a few Questions—

1. Is it probable that such an eminence and ingenious contrivance, for the enjoyment of Corporeal and mental Pleasure, should have been given to us to last no longer than the ordinary term of human Existence in this World?

2. Does not the exact Correspondence which exists between all our capa=

= cities and avenues of pleasure,
(the sensual appetite only excepted)
and the ineffable pleasures of a
future World which are described
in the old and new Testaments, Ande
it probable, that our capacities,
and these pleasures were made
for each other.?

3. Is it probable that a Wise and
good Being, whose means and
ends are so exactly suited to each
other in such parts of his works as
we are able to comprehend, wild
frivolously waste or throw away the
costly and beautiful apparatus, he
has given us for the enjoyment of
Corporeal and mental Pleasures?
But I am wandering from the subject
I am Lectures. Let us be good here:

and we shall be wise hereafter. —

all the Sick in the middle of the Ward, which put an immediate Stop to the Mortality of the Disease. — In the Spring of the Year 1777 a typhus fever broke out in a Military Hospital under my Care in the Battering House. In the Month of May the weather became so warm that the Windows of the Hospital were kept constantly open by which means the Seeds of the fever were nearly dissipated. — About the 20th of the Month, the Weather became suddenly so cold, as to make it necessary to close all the Windows of the Hospital in Consequence of which the fever

Tevived and with so much
Malignity as to carry off, not
only a Number of Soldiers, and
three Surgeons, but to affect nearly
every person who attended the
Hospital. The second instance of
the deadly effects of confined Air
occurred in the City Hospital
of Philadelphia in the Year
1797. A cold shower of Rain,
on the 23d of September made it
necessary for the Nurse to shut
all the Windows of one of the
Wards of the Hospital during a
single Night. The next Morning
Seven of the Patients confined in
that Ward were found dead, five

of whom were considered in no
danger the night before. This fact
was communicated to me by Mr.
John Connelly of this City, who
was one among many witnesses
of it. To change the air of the Wards
appropriated to fevers, an important
advantage would arise, were
it practicable, to have the fire
in the Winter in a hole in the
Middle of the Ward instead of
a Chimney, and to suffer the
Smoke to escape through an opening
made in the roof in a perpendicular
line with this hole
What little smoke was unable
to rise to the hole, would help to
prevent the generation of contagious

Miasmata, as has often been seen
in fever hospitals. This Mode of
Warming and Ventilating Hospi=
=tals was invented by Dr Felton
in the American Army. I
have seen it with great pleasure
and am happy in thus publicly
bearing a testimony in favour of
its good effects —

4th A fourth Mode of purifying the
Air of a hospital is by means of
Water. Were it possible for it to
flow in a perpetual Stream through
every Apartment of a Hospital
then is reason to believe fevers
would generally be prevented
or deprived of their Malignity.

But substitutes for this agreeable
Mode of conveying Water into a
Hospital may be contrived by
frequently washing, and washing
not only the floors but the Walls
and ceilings of the Wards. —
If the Theory of Dr. Mitchell be
Correct, the Water could be render
=ed more salutary by mixing
a Quantity of Ley, or dissolving
Some Salt Tartar in it before
it is applied to the above purpose
5th. The use of the Muriatic acid
in the Manner recommended by
Dr. Johnston, and of the Nitrous
acid as recommended by Dr. Car=
=michael Smyth should not be

omitted. The facts in favor of their Utility, are too numerous, and too well attested to be doubted.

II The Means for promoting Cleanliness relate to the bodies, and Clothing of the Sick, and to the Wards and environs of the hospital.—

1st Every person in a fever, who is admitted into a hospital in warm weather, should be stripped of the Clothes he has worn and his whole body should be washed with Soap and Water. His Linen should be changed daily; and when a fever tends to generate morbid miasmata, his Sheets should be

Changed likewise. The practice of Washing the hands and face every day, in all Diseases should be universal. — In those Cases where danger is to be apprehended of the generation of a Hospital fever from the Wards being accidentally Crowded, the whole body should often be washed in a bath accomodated to the Strength of the Patients, and the Nature of their Diseases.

Foul Linen should never be put into a Closet nor Basket until it has been exposed to the air — The shorter the time it is kept before it is washed the better —

sharing should be enjoined upon
the Men three or four times a
Week; and the hair of Patients
of both Sexes should be combed
daily and only to prevent the
generation of Lice, but the
accumulation of that Kind
of Sordes upon the Scalp, which
by long stagnation sometimes
becomes the remote cause of
Hospital Fever:
of the Sick
The Beds should be frequently
Exposed to the Air and uncommon
pains should be taken to prevent
the Bedsteads becoming a Receptacle
for Bugs -
The intestinal and Urinary Excretions

Should be removed as soon as they
are discharged; and the Vessels which
Contained them, should be thoroughly
Cleansed. — If any Hospital should
be so situated, as to recieve Water
from a Spring into its upper
Story or if a Reservoir should be
Made for Rain Water in its Roof,
Excretions may be instantly washed
away into a Common Sewer,
by Conduit Pipes conveyed to the
Water Closet for that purpose.
When Patients are unable to walk
to the Water Closets the Smell of
their excretions by Stool should
be prevented by being recieved
in a Chamber Vessel half filled
with cold Water. — This delicate

mode of destroying the foter of the Excretions from the bowels is recommended by Dr Clark in his treatise upon the means of preventing the Diseases of long East India Voyages.

Bathing Boxes —

The use of Tobacco in any form should not always be prohibited provided it used in Segars so as not to be offensive —

The Wards should be white-washed three or four times a Year — The Efficacy of Lime when thus applied in preventing and destroying contag = ion has been established by many facts — Where a Hospital is built of Wood, painting the Wards has been found very

salutary — The Environs of a Hospital should be watched with a careful Eye. No matter capable of Putrefaction should be permitted to remain in them. However innocent they may sometimes be, they contain in them the Seeds of Disease and require Nothing but the Co-operation of Heat and Moisture to bring them into action —

In every Hospital there should be two or three Wards for Convalescents from Fever — Recovery is always hastened by burning Patients from the Rooms in which every Object has been associated with the Fear of Death — but there is

another reason for adopting this practice - the Exhalations from persons who have been confined by the Hospital fever often adhere to Walls and floors, and thus reproduce the Disease or retard convalescence. —

In reviewing the Means of preventing the Contingent Evils, and extending the benefits of Hospitals we are led to do homage chiefly to Pure air and Water. It is because they are so cheap and universal that their usefulness is so little appreciated. —— The Doctrine of Contagious Disease being repelled only by offensive nuisances =

=positions, for the different purpose
of supporting expensive quarantine
laws and Lazarettos - he compares
to the Barbary Powers who only are
to be opposed ~~successfully~~ in the
same way - as well might we
attempt to draw down rain from
the Clouds by a procession of
Images, as aim to avert Pestilence
by any other Means than Air
and Water. The Sun it is said
became the Object of Worship
by the immediate descendents
of Noah, in consequence of its
exhaling the Waters of the Deluge
and restoring to their sight the
Surface of the Earth - He thinks
if Mankind were not restrained

by their Religious servile acts of
Idolatry to air & Water would
be performed Did they comprehend
the advantages to health and Life
which pure air and Water are capable
of affording — And wishes the Water
of Schuylkill may pour and roll
flow through all our Streets and
into all our houses and while
they wash away the filth of
our City may they wash away
at the same time the Prejudices
which derive domestic fevers
from foreign Countries. —

Miscellaneous

1st. The Diet of the sick should
be accomodated to the States of
their individual Diseases; Lubas

a considerable proportion of the
Patients in all Hospitals are affected
by Poisons in admd & Uniformity
of Diet as to Quality, I would
advise that it should be frequently
Varied — Particularly on Sunday
& old Noted Days — It will
serve to break up unsafe Habits
and show to the sick that they
have not forfeited by their Poverty
and Sequestration from the World
an interest in the common and
Public Blessings of Mankind.

2 There is no Occasion excluding
from Hospitals
Patients with bilious or typhus
fevers under an apprehension of their
Spreading by Contagion — if the
Precautions which have been le=

= commended are adopted — Children
ought not to be excluded on accoun
of their Noise —

3d The practice of demanding
Security for their interment has
been found to exclude persons
with Diseases that might have
been easily Cured, and is calculated
to damp the hopes of Relief in those
Who are able to comply with it.

4th. All forms should be dispensed
with in admitting such cases of
Surgery as are the Effects of Accident

5. The Physicians and Surgeons of
a Hospital should Visit their
Patients at a regular hour. The
frequency of their Visits should
be Regulated by the dempa of their
Patient

A correct account should be kept of all their prescriptions, and when practicable, of their effects upon Diseases.—

6th The Pupils who attend the practice of the Hospitals should conform to such of its Regulations as are intended to promote cleanliness decency and order— Their Visits to the Sick should be at those times that will least intrude upon their eating, sleeping and taking Medicines—

7th The Relations and friends of the Sick should not be permitted to visit them, except with the consent of one of the Principal Officers of the Hospital.

in exhibiting a View of its different
department to Strangers, Maniacs, if
they should compose part of its
Patients should never be seen.

8 In determining when to discharge
Patients from a Hospital, some
judgement is necessary to distinguish
between them who counterfeit Dis=
=eases in order to escape away
weeks & Months in idleness and
those who are willing to depart
before they are able to return their
former occupations. — It should
always be remembered that a Disease
may be completely cured and yet the
Object of it remain in such a State
of Debility as to render him unfit
for Labour — For this Reason it

will sometimes be proper to detain
Patients for some days, or even weeks
after they appear to be cured, and
to continue to administer to them
such Remedies as are calculated
to invigorate the System and
thereby prevent a predisposition to
a Relapse, or to acquire another
Disease. This practice is proper
at all times, but chiefly so, in
the autumnal and Winter Months.
The Pennsylvania Hospital was
projected by Dr Thomas Bond
and which (Hospital) has been
for many Years the Pride and
Ornament of Pennsylvania.—
To his friend Dr Franklin he
surrendered the Honour of laying
the corner Stone of this noble Building.

It was formed in the Reign of George the IIIrd. No of Persons until since its Foundation 6476. ——

The Saviour of the World owns the Miserable outcasts of Society who occupy the Wards of Hospitals as his Relations and has declared he will Reward acts of Kindness done to them as if they had been done to himself - His memorable Words shall conclude our Lecture 'I was sick and ye visited me and again, Inasmuch as ye have done it unto these my brethren, ye have done it unto me. ——

This Page ought to have been 36
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Of the Pains and Pleasures of a Medical Life. — Delivered Nov. 7. 1803

1 The Pains of a Medical Life naturally divide themselves into Vexation, Distress and Solicitude

The Ignorance of Mankind of the Nature & Medicine — This ignorance discovers itself in different degrees of Credulity and Superstition. it leads to a preference of Quacks — also of artful, vulgar and sometimes brutal Manners to such as are candid and simple & Polite — and of Pretensions to Skill though accompanied with levity Profanity & Drunkenness, to a Conduct uniformly grave, decent & sober in

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Regularly bred Physicians. I once
~~called~~ was called to a Gentleman
this City who had been in the
habit of being attended by
a Physician of this City of brightly talents
and who had lately died and
who was an habitual Drunkard-
He submitted with reluctance
to my prescriptions, because they
were contrary to the mode of
practice of his former Physician.
to who he was so much attached
that he declared he would rather
be prescribed for by him when
drunk, than by any sober Phy=
=sician in the City.——

2ᵈ The extensive and profitable business which sometimes falls to the Share of those physicians who have been remarkably successful in their practice is another source of the Vexations of a medical Life.

Public Ingratitude.

Unnecessary Calls from his Bed — from his Meals, and from Company. in the Delays to which he is sometimes obliged to Submit, before he can be introduced into his Patients bedroom while the engagements are preying upon him — disobeying prescriptions — Petulance — Self denial & Pleasure,

of Society or Excursions from
Home, — listening to tedious
and unconnected histories of
Diseases — Ingratitude — indelay
and Refusal to recommend Ser=
=vices — Dismissing him in a
fit of ill humor after having
owed to him the frequent pre=
=servation of their Lives. —

Persons in humble life who have
been attended gratuitously by deserts
their family Physician after
their Elevation to Rank and
Consequence in Society lest they
should be reminded, by our
intercourse with him of their
former Obscure and dependant
Situation. —

& attendants & Visitors — often
give improper Drinks & food — &
Neglect to administer his Medicines
at the time and in the manner in
which they have been prescribed.
by advising heterogeneous consul-
=tations — loud and long conversation
and deprive them by the fatal Speed
Diseases similar to those with
which they are confined. —

¶ The conduct of Physicians to
each other —

The following was the Declaration
of Linnaeus composed a short
time before his death — I have ranged
through the thick and shady forests
of Nature. I have in my rambles

found Shame & perplexity than
I have as much as possible avoided
them. But I have learned as
the same time, that attention
and foresight do not always con
=ciliate perfect and entire safety.
"I have therefore gladly borne the
derision of grinning Satyrs and
the Jumps of Monkeys on any
back." It is remarkable says
his Biographer, who mentions
the Names of these Satyrs and
Monkeys, that no one of his Per=
=sils was ever mentioned among
his Enemies. Happy Philosopher
of Upsal, in thus escaping the pain
which the ingratitude of Pupils inflicts

upon the Minds of their Preceptors!
The degree of this pain, when excited
by a different cause was correctly
measured by Shakespeare when
he ascribed the "bursting of the
Mighty heart" of Cæsar to it.

Solicitude as a source of the pains
of a medical Life -
which is excited by doubts of the
Nature of our Patients Diseases -
by the occurrence of new and
alarming Symptoms - by unexpected
and disagreeable effects from our Med
icine; by the anxious enquiries of
their Relations and friends of the
Sick - with respect to the progress of
their Diseases; by our own apprehen
=tions of Censure in case of their

fatal termination; and lastly, by our constant fears of doing too much or too little. —

Pleasures of a Medical Life —

1 Anatomy & Physiology unfold a Microcosm of Wonders to the inquisitive Mind —

2 Natural History — & his beautiful productions in the Vegetable, animal and Mineral Kingdoms Linnaeus turned his back upon the comforts of cultivated Life & undertake a journey to Lapland on foot in quest of Discovery in ~~Lucrece~~ Natural History.

The Study of Chemistry affords a perpetual source of Pleasure by unfolding the Effects of heat and Mixture. — Water, Air, the Interior and bowels of the Earth and even animal and vegetable Substances are compelled by these agents to exhibit their component parts to our View. ——

The Pleasure a Student derives in Chemistry foreign Countries — and conversing with the enlightened Physicians of other Nations;

5 New Discoveries — such as the Noncontagiousness of the Plague &c ——

Dr Harveys Circulation of Blood -
Linnaeus System of Botany founded
on the Sexual Relation of Plants.

Blacks, Priestley and Lavoisier
merit have been elevated to
Capitine when they discovered the
Component parts of air and Wate
and their extensive applications
to practical purposes in common
Life -

Dr Jenner's discovery of Vaccination

Lect: X

on the Means of acquiring knowledge and the Causes which prevent the acquisition and occasion the Loss of it, in the Profession of Medicine

Delivd Nov. 4th 1807.

The honourable Means of acquiring knowledge

1 Great application to Study, in order to aid Observation and Experience as much as possible by Reading and conversing upon Medical Subjects.

2d. Punctuality in visiting Patients and fidelity in complying with engage=ments.

3d. Inoffensive and acceptable Manners Consisting in the habitual exercise

of self denial as far as it relates
to the temper; and in universal
Civility or politeness.
4th. Sympathy with the Sick.
5. Attendance upon the poor.
Boerhaave, Fothergill, and Cullen
owed their sudden elevation,
into extensive and profitable
business, chiefly to their being
often observed going in and coming
out of the huts of poor people.
6th A Regard to decency in Dress—
7 A Respect for Religion and Regular
Attendance upon Public Worship—

8. Cures performed of difficult Diseases have often introduced Young Physicians into extensive business especially if they had previously baffled the Skill of old Physicians.

He compares the bold, successful and energetic practice of Darwin and the opposition it with & the dignified manner in which he repelled the charges of being rash experimental and theoretic"—

To use the words of Shakespeare quoted by his female biographer resembling the "Lion when he shakes to the air, the dewdrops of his mane."

9. The practice of Surgery.

10. Writing and Publishing a popular and useful Book.

A Diploma honorably acquired by previous Study, and an ex-
= amination in all the branches of Medicine, begets immediate Confidence in a Physicians Know
= ledge —

The artificial & accidental means of acquiring business —

1 The Patronage of a great Man, a fashionable Lady, or of Several pow
= erful families —

2. The Patronage of a political party

3. The Patronage of a Religious Society.

4. The Patronage of an old Physician.

5th Connexions formed by serving in a Medical Capacity in an army.

6. Such Negative Qualities as a Physician as render him the favorite of all his brother Physicians

he compares the Dispositions of these Men to the Affinities of Copper to all other Metals: they unite with every Mode of Practice & become a Kind of Consultation Hacks—

7. Splendid acts of friendship or Immunity—

8 A critical Knowledge of the Latin and Greek and other Languages.—

9 Singularity in behaviour, Dress and Diet. Great facilunity.

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to Eccentricity of manners & Conduct

11. Impiety - Drunkenness - Profane
Cursing and Swearing. infidelity
Atheism - It is difficult to account
for the preference it is given to such
Physicians - Perhaps the boldness
of their Vices and Extents of Errors
are considered as Marks of intrepidity
of Genius; and talents for deep and
extensive ~~investigations~~ upon other
Subjects; and hence probably their
Reputation for uncommon Skill
in Medicine -

12th. A Rejection of the principles
of Reason in Medicine. -

13. Great minuteness in inquiring into the Symptoms of Diseases. The Inspection of the lips and teeth by a magnifying glass.

14 Trifling and absurd Refinements in the Prescription of Medicine as to dose, Manner of preparation and exhibition and attaching important Consequences to the Neglect of them.

15. An affectation of a Suddenness in = = initiating Knowledge of a patients Case by feeling but a few strokes of the Pulse. —

16. Walking or riding without any definite Objects, Particularly in rainy and Stormy Weather.

17. Speaking in ale Companies &
the Numbers or Ranks of Patients.

18. an Opinion accidentaley true
of the Cause of a Disease.

19 An Accidental Cure, pentaculars
of Worms—

20 Prescribing for distressing Symptoms
only without a due Regard to
the Nature and Danger of the
Patients Disease. Such as giving
a large Dose of Opium the first
Visit &c—

21. The introduction of a new & pleasant
Method into practice.

22 An Elegant & beautiful Poison.

23 Being the 7th Son.

Dishonorable methods of
acquiring business.

1 Disparaging the Principles, and traducing
the Character & Practice of Brother
Physicians.

2. Traducing new & popular remedies.
those remedies

3. Performing cures by them in a
disguised form.

4 Taking undue advantage of
Brother Physicians in consultations,
by extraordinary degrees of attention
to their Patients, neglecting at the
same time their duty to their
own.

5 Publishing accounts of Cures that
never existed & of Cures that never
were performed

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6. Charges so low as to allure
Patients from their old and habitual
Physicians.
7 Flattering the prejudices of Cities
and Countries, upon the Subjects
of their health & prosperity.
8 Begetting Confidence in Talents
and Education by means of a
diploma conferred without merit
or purchased by Money.

On the Loss of Business -

The Causes are just & unjust -

The just Causes -

1. Ignorance in Medicine infered
from an Ignorance of these things
A Physician of a London Hospital lost
all his business by misspelling the

Name of his Patients on the ℔ 2 board
which was placed over his bed. —

2 Attendants for Pleasure —

3 Delays in complying with Calls
to sick Persons — Bottles without
Stoppers — broken pill Boxes in Each
a disorderly Shop.

4 Inattention to the history of tedious
Cases. & Patient deeply resents
this Kind of treatment.

5 A careless or superficial ex=
=amination of a Disease.

6th A harsh and indelicate mode
of behaviour. —

7. Drunkenness & brutal Manners —

8 An unfavorable prognostic of the
issue of a Disease. —

9 Refusing to go out in the Night.

10 Weak & trifling Publications

11 High & Extravagant Charges. —

Unjust Causes of Loss of business

1. The Discovery & Propagation of
New Principles or of new modes
of Practice in Medicine.

2 The early declaration of the Existence
of Pestilential diseases in a City &
County. and of their originating
in Domestic Causes.

3. Great and unexpected Cures —

4 Neglecting to name a Disease or
calling it by an improper Name.

5. Making light of a Disease

6. Medicines prescribed unsuccessfully especially if they gave Pain.

7. The Want of Polished and engaging Manners. Dr Smellie ~~was~~ altho' of the first talents could not rise in London above the 2nd Grade of Physicians —

8. The Sudden or gradual elevation of Persons from a humble Rank.

9. Extraordinary Cures effected by Extraordinary Exertions of Skill & Humanity —

10. Communicating to Patients the Knowledge of the Amount of their pecuniary obligations. has often been the cause of a Physicians losing his business.

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11 Sickness in a Physician and necessary
Excursion from home, in order
to acquire health, have often dis=
=solved for ever the connexion
which united him to a numerous
Circle of Patients.

12. Unpopular opinions in Politics
and Religion —

13 Writing Poetry and upon Subjects
Unconnected with Medicine.
They consider Medicine a Trade;
and that Physician to be the most
dexterous Workman who knows
least of other things. It is said
Dr. Armstrong and Dr. Akenside
destroyed their medical prospects by
the publication of their elegant Poems.

Dr. Darwin was to scientific of this
incident in the history of their lives
that he did not commit. his botanic
Garden to the Press, until he was
apprised by several of his friends,
that his age, and the long establish=
=ment of his medical reputation
placed him beyond the reach
of the least injury from the publication
of that celebrated performance.

14. The Offensive Noise made by
a Physicians shoes in ascending
the Stairs —.

The Union of the Wisdom of the Serpent
with the Simplicity of the Dove, does
not produce more solid advantages in
any human pursuit, than it does in Medicine

Lect: ~~XI~~

On the Utility of a Knowledge of the faculties and operations of the human Mind to a Physician.

Delivd Novr 21st 1805

In of faculties of of Mind, I include Memory - imagination - understanding - the principles of faith - Will - the Passions - the moral faculty - Conscience - and a Sense of Deity.

In the operations of the Mind, I include Perception - Abstraction - Judgment - Reasoning and Volition - There are several mina operations, which shall be mentioned in their proper place -

A Knowledge of these faculties, & their Operations, is useful to a Physician in the Studies; first of Physiology or the history of the functions of the body in a healthy State.

2 Hygiene or the art of preserving Health

3 of Pathology or the History of the causes of Disease

4th of the Practice of Medicine.

I shall barely remark, that Consumption, fevers, Convulsions, Diseases of the Stomach and Bowels, visceral Obstructions Apoplexy, palsy, madness, with a numerous and melancholy train of Mental Diseases, are all frequently brought on by the undue action of the Passions upon the body. —

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when is the Studious Man, who has sat
Sat down indisposed, occasionally,
to his book or his pen, and risen
from it a few hours afterwards
in good health —?

The same Salutary Effects produced
by playing
by Games of cards Chess &c-
Backgammon —

Madness was cured in Dr Mosely
by being allured to the Study of
Mathematics — if it be true as said
in early life —

Slow fevers have been suddenly re-
= moved by a Paroxysm of anger.

Laughter cures Diseases — The Cardinal
of Rome ~~if when the~~ wagered in this way upon seeing
a favorite Monkey strut on his
Pontifical Robes & stately about the
Room —

It would require many pages to enumerate all the Cures of Diseases that have been performed by faith, hope, love, domestic affection, Curi=osity, ambition, avarice, anger, hatred, Malice & Revenge, — It is no objection to the Medicinal effects of these passions that they often bring on Diseases. —— Faith he considers a Passion of nature. capacity and have placed it before any of the Passions of the Mind — it is the most active of any of them in its Operations in all the affairs and business of Life. its effects are discovered daily in Cures of Diseases performed by Quacks — It is the Stimulus of faith upon the Body —

I have known two instances of
Cures of Patients by their Physician
assuring them, "they could not die
of their respective Diseases if they
were to try for it" —

Hope is the Diet of the Mind in
Sickness —

Hypochondriasis has been cured
by Love and Anger.
Avarice cures Disease —

Dr Darwin relates an instance of
a Man who recovered himself,
when debilitated by Labour or
exercise by a Hunting of a Person
whom he hated — so that even
the Malignant Passions impart
Vigor to the Body if affected by
Debility — as a Disease of weak motion
action —

Fear & Grief are both devoid of healing
Virtues - Hiccup, Epilepsy & Dropsy
have been cured by Fear — Grief
& Disease have removed Hysterics —

The Passions are Pioneers of the
Mind with Style in our Constitution
by means of Anger and Terror, an
Understanding and Memory, that
have been torpid for Years have
suddenly been excited into healthy
Action. has often
Madness, been cured by that in
= fluence of the Passions on the
Understanding and Will —
without any other remedy.
Of the Physical Means of Exciting the Passions I shall
mention Music — its influence
over them is great & its Effects won =
- derful in the Cure of Diseases —

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A Physician, to render his Prescrip-
= tions successful should study into
the State of his Patients Mind
and to Regulate his Conducts and
Conversation as to aid the Operation
of his Physical Remedies -

The means are

1. To insinuate Faith &c it can be
Done consistently in Truth -
infusing Hope & Pleasure into
the Mind of his Patient by a
Cheerful Voice and Countenance.
Agreeable News and pleasant
Anecdotes - by removing painful
and Exciting happy Associations
of Ideas - and above all. by the
apparently casual Stories of the
Recovery of other Patients from similar
Diseases.

The Dr mentions his Visitors a
from Mary Land
Schoolmate & Whom he used to
Visit an Eagles Nest and have
much Merriment — The morning
in Phila. & was ill in yt City
lowest stage of
fever he was called in Consulta
upon entering ye Room he
~~turned~~ caught her Eye and
said only the 'Eagle's Nest' She
discovered strong emotions of Pleasure
in her countenance & Seized his
hand — probably from a sudden
Association of all her early dorme=
= tic Connexions and enjoyments
with the Words I had uttered.
From that time She began to
Recover. She now lives and seldom
fails, when we meet to salute me
& the Echo of the Eagles nests. —

A Knowledge of the faculties
and Operations of the Mind not
only furnish numerous articles
of the Materia Medica but enable
us to predict the fatal issue of
Disease — In Yellow Fever in ye
last Stage — The Pulse Tongue and
temperature of ye Skin assume
their healthy States — Even the appetite
and natural Sleep return — here it would
be impossible to decide the Patients
real Situation were it not that
the Mind emerges from behind the
Cloud and indicates Death to be
at hand by an unusual degree
of indifference to every thing around
them; by a tranquil, placid, and
sometimes a cheerful disposition; and

by Patients saying, when they were asked how they were, that "they felt too well". —

The faculties and operations of the Mind are not only useful to y^e Physician in his medical Capacity, but also as a Citizen and a Man —

In the Course of Life, he will often be called to give his testimony in Courts of Justice upon the influence of Diseases upon the Mind. —

To Enable him to do this correctly he should know what constitutes Derangement and what degree of it should exculpate injuries — it should set aside testimony, or invalidate the

distraction of property by Wild-
from the ignorance & Error of
our Laws upon this Subject
there is reason to believe much
Cruelty and injustice are often
perpetrated by them - altho much
yet remains to be known on
this Subject.

2 The Mental Sciences will enable
a Physician to advise a Rational
and just order for conducting the
Studies of Youth founded upon
the gradual evolution of its faculties
he will begin with those branches
of Science which are acquired by
the Senses and Memory. These will
be Geography, Natural history, Civil

history, and modern Languages.
These branches of Science which
are acquired by the combined
operations of the memory and
understanding — defined title a
free and general inducement is
established by age & Reflection
between all the faculties of the
Mind. —

3 In the Science of Theology & Morals
a knowledge of the faculties
and operations of the Mind will
enable a Physician to discriminate
between what is, Divine, and what
is of human invention in each of
them. — He will moreover find proofs
the truth of
of many Stamps in the Sacred Scriptures

which are obscure or denied, only
because they are not accurately
measured by what passes in
every human mind. ——

4 In the service of Government
a Physician will find his Maxims
knowledge of amusement advantage
to him should he be called to
take a part in the public affairs
of his Country — From his knowledge
of the debilitating effects of inactivity
and confinement upon the unda
= standing and Passions, he will be
an Enemy to Slavery and a friend
to Liberty; and from his frequent
opportunities of witnessing the destructive
effects of the Passions upon the human

body, he will see the advocate of
this Government only, which
falls laws most completely
from the Passions of Legislators,
Judges, and the People. —
He terms the Science of the Mind
Phrenology —
The leading Opinions of Locke, Condil=
= lac, Hartley, and Reid may be
found in the Writings of Aristotle
and Plato, — The Mind is the
same now that it was in the time
of these illustrious Greek Physiologists
and of course exhibits the same
Phenomena — I except from this
remark the Speculations upon the
Materiality & Immateriality of the Mind.

The Mind of Man is the first pro-
=duction of creating Power and
Wisdom in our World. Though
limited in its Capacities, it is infinite
in duration. Though fallen from
its original dignity, it has been
restored as an infinite Jewel
Temples and Palaces — Crowns
and thrones — May the great
Globe it self (if we inhabit
but the Mind of Man shall live
for ever. In the Word of an
inspired Writer and in the same
Language in which he addresses the
Deity. "They shall perish" meaning
the Earth and the Heavens "but
thou shalt endure; yea, all of
them shall wax old like a Garment,

but thou art the Same, and thy
Years Shall have no end".

Lect XII

On the Opinions & Modes of Practice
of Hippocrates Delivd Nov. 3d. 1806

The first anatomical Lecture was
delivered in this Country in the Year
1762 by Dr Shippen. In the State-
= house and to an audience of the
most respectable Citizens of Philada
Dr Morgan Delivered in his House
to about half a dozen Students
Lectures on Botany, Chemistry,
and Materia Medica. — 1766.

Hippocrates was a Grecian Physician
& Greece -

"In a Physician Lays Het there
should be a contempt of money,
a sense of shame, Modesty &
Cleanliness of Dress, judgement,
gentleness, Urbanity, promptness
of Speech, freedom from superstiti-
=tion, and great integrity."

The Cure of Diseases he says in
one place consists in two things
Viz "addition and Subtraction"
and in another part of his Works
"in doing nothing" The Wisdom
of ages is summed up in these
excellent Rules. They have been
since expressed in three Latin Words
through in a different order. These
are "abstine, sustine, vite.

Or otherwise — "Optima Medicina,
Nulla Medicina" the best Med:
= icine in Many Cases is no
Medicine at all —

Lect: XIII

On the Duty and advantages of Studying the Diseases of domestic animals, and the remedies proper to remove them.

Delivered Nov. 2. 1807.

A Physician who knows nothing but the Sciences which are supposed to belong exclusively to his Profession is a Nonentity.

Lect: 4th

On the Duties of Patients to their Physicians —

Delivered Nov 7. 1808.

1 Choose no man for a Physician who has not had a regular Education in the Profession of Medicine.

"The man who taught himself Physic" Dr Cullen used tell his Pupils "had a fool for his Master"

2 A Physician whose habits are perfectly regular — The proper place for a Physician when not engaged in Visiting the sick, is in his Study or by his fire side —

3 A Patient. Should confine the care of himself & family to one

Physician he thereby acquires a
Knowledge of their Habits & Temper.
& the Sympathies and antipathies
of their Constitutions.

4 A Patient should always apply
for advice in Cases of Insanity &
the most trifling nature.
Fatal Diseases often succeed a
slight fall, a little bruise, a small
tumor and a scarcely perceptible
Pain — Were this always the Case
Consumptions and external Cancers would generally be prevented; and there would be
few Deaths from Fevers.
Many a Man has been saved
from a Consumption by the Juice
of two or three Bleedings in its Journey

State, who had he neglected it would have paid for his folly not only the Price of his Life but many hundred Dollars out of his Estate.

5. A Patient should be faithful in Communicating to his Physician the history of the cause of his Disease Debt, Love, Guilt - Intemperance in Eating & Drinking, Tobacco Strong Tea & Coffee - i also domestic Troubles + when concealed are also very powerful countericurrents to the Efficacy of Medicine. — Even Malice has had this effect -

Dr Tissot mentions a case of a Man who told him he could find no enjoyment in any thing; and that his whole nervous system was disordered in consequence of a constant & painful beating in he felt to a Person

who had injured him - all these
sources of disease should be acknow
=ledged to a Physician - by they
will lead him either to increase the
Strength of his Medicines, or to
employ new ones, more suited to
the Nature of the Disease. Thus
thus depositing its Secret cause in
the Bosom of a Physician, a Patient
will often find unexpected Relief
not only from his Sympathy but
his influence in removing it.
Relieve the Debtor by influence in
ye Creditor - Guilt & Malice
may be removed by recommending
a pious Book or a Minister -
Habits of intemperance and an
undue attachment to Tobacco
Coffee & Tea have been cured

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when confessed, by the address of a Physician to the interests of a Patients, or to his love of Life.

Females should not conceal their Complaints—

6 A Patient should not blend the history of his Disease with too minute an account of its Symp=
=toms nor with Matters that are not related with it.

The Chaos of Words & Ideas thus jumbled together resembles the description which the Indian gave of the City of London, the first time he saw it. Being asked how he liked it he answered "not all too much houses—too much Men—too much every thing!"—

7. A Patient should never trouble the details of his business, nor the history of his family concerns upon his Physician. —

8. The Obedience of a Patient, to the prescriptions of his Physician, should be prompt, strict, & universal — He should never oppose his own inclination nor judgement to the advice of his Physician. in the use of any Medicine whether it relate to the Dose, or the Mode or time of taking it. — A failure in any one of these particulars may be the Loss of a Link which may render the whole Chain of a Physicians plan of Cure useless & hurtful. ——

On the Stones of those who die from
refusal to comply to prescriptions
should be inscribed "Here lies
the Body of A. B. who died
because he refused to be bled &

9. A Patient should never take
a Medicine of any Kind, however
strongly it may be recommended
to him & however simple, without
the Consent of his Physician.—

10. He should give Notice in
writing or otherwise, of all changes
in the disease, in the intervals
of the Visits of his Physician.

11. A Patient should never admit
even the friendly Visit of a Physician
who is not attending him.

A Patient should never send
for a Consulting Physician with
=out the Consent of his family
Physician.—

13 If a Patient be desired to desmiss
his Physician justice requires that
he should communicate to him
directly or indirectly, his reasons
for it.—

Minor Duties

1 A Patient should always send
for his Physician in the Morning
when the first attack of his
Disease has not been in a subs=
=sequents part of the day.

2 A Patient should avoid calling
his Physician from his Meals.

A Physician in this City upon being
Called from his dinner by a Patient,
bid his Servant to tell him that
he was Feeding - in allusion to
the time that was allowed over
domestic Animals. ——

3 A Patient should always be in
a State of readiness to receive the
Visits of his Physician. ——

after a Patients Recovery -

He should speak well of his Physicians
Services. In treating of his Case
he should avoid ascribing it to a
Consulting Physician if he has been
attended by one.

2 To remunerate him for his Services.

getting rich from
"a sordid Economy, alike disgraceful to
humanity and the Profession of Medicine.

1st Payment for our Services Should
be prompt; that is, that it Should
be made either in part during our
attendance, or wholly as soon as
our Patient is cured. —— a si
frequent sickness prevents this at
least at the end of the year —
A Physician Should never be
permitted to send the same acct
a second time to a Patient. or if so,
interest Should be paid upon it
from the time of its first delivery.

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2 all Letters for advice shoud
contain a fee & the postage
always paid —

3 The Compensation for Consultations
should be higher than for the
ordinary Services of a Single Physician

4 When an account is higher than
a Patient expected and disproportioned
to his resources we expect to be
told so — and from all regular bred
Physicians the acct would be reduced
to the level of his Wishes. —

Circumstances
5 Persons once in easy should be
attended for Nothing, also —
Poor Clergymen, & the destitute Widow
and Orphan, ~~&~~ and the hired Servants —
in families in which we regularly attend. —

4 As Physicians often enter the houses
of their Patients fatigued with Cold,
or dripping with rain, they should meet
them with Sympathy and endeavor to
alleviate their Sufferings before they
Conduct them into their Sick Rooms.
Such Refreshments should be offered
to them as are known to be agreeable
to their habits (provided ardent Spirits
be no part of them) and even the
Repose of a Bed. Should not be with-
=held-

Lect: XV

On the Means of acquiring Knowledge.

Delivered Nov.r 6. 1809.

Seven Modes have been employed for the
purpose- These are, Observation, Reading,

Thinking, Experimenting, Reading,
Conversing, and lastly, Composing,—

1st being "all eye— all ear— and all
grasp"— is not alone sufficient, but
in having all the senses of the body
Constantly excited to recieve impressions
from every Quarter.

2nd A second source of Knowledge is from Books.
The advantages of Observation are very
much limited. by means of reading
we avail ourselves of the Observations
of thousands in different Ages and
Countries; "When I mix with
the World" said Voltaire "I am subject
to every Mans humor; but when I enter
a Library, every Man's humor becomes

subject to me" "A Chair is a tavern"
said Dr. Johnson "is the throne of
human felicity" He would have
been more correct had he placed
that Chair in a library. — it is
in this Repository of the fruits of intellectual
labor that we find our Estates
of human knowledge. Here the
historian roams, the traveller amuses,
the poet delights, and the Philosopher
instructs us. —

Studium sine calamo somnium"
says the Poet — or Reading without a
pen ~~in~~ in our hands is dreaming.
Mr. Locke has advised this Mode of
Collecting Knowledge.
III Knowledge is acquired by thinking.

The advantages of the Spontaneous Exercises of the faculties of the Mind appear in the great superiority which books, written by men who possess active employ= =ments, have over those which are Composed by Men who pass their lives in a Closet or Library. —

The Benefits of thinking will appear still more conspicuous, when we attend to the Exploits of the Mind in persons who have lost their eyesight. How profound are the thoughts of Saunderson in Mathematics! and how innumerable are the images and Ideas, that are to be met with in the Works of Homer and Milton! —

IV By Means of Experiments

V

Conversation.

A Silent Woman, it has been said,
seldom possess a healthy body.
it is equally true, a ~~Silent~~ Silent
Man seldom possess a clear and
active Mind.

W. Fox declared in the British
House of Commons that he had
learned more from Mr Burke's
conversation than from all the
books he had ever read in his
Life. — Men are formed by ex.
It is Education in Youth. —
A Knowledge of a Man's Manners
may always be obtained by the Know-
=ledge of his Company

it is for the sake of an interchange of Opinions & Ideas that he recommends it to Student to live together two or three in Number & attend the Lectures. —

VI by recording Facts & Thoughts Suggested by Observation, Conversation & Reflection.

Voltaire noted down, in large Companies, and at a full Table, every thing he heard that he wished to remember — And Mr Pope Stole from a Bed at Midnight while at Lord Oxfords, in order to call up a Servant to furnish him with a Candle that he might record a Thought Suggested perhaps by Wakefulness or a Dream —

VII By Composition — Dr Goldsmith was called "the inspired idiot" among his friends — on account of his being silent, dull, or desultory; in conversation but a penetrating the faculties of the Mind in Motion; and rendered him the Difference in his appearance as a Companion and Author very great —

Mr Gilbert West and Lord Lyttleton were both Members of a distinguished Club. The former was Requested to compose & publish a Refutation of the Arguments in favor of the Christian Religion, from the Resurrection of our Saviour. The latter was Requested

to ~~compose and publish~~ overthrow
the argument, in its favor, from
the Conversion and apostleship of
St. Paul. They sat down in their
Closets, and spread the facts ~~upon~~
~~paper~~ which supported their theo-
=ries upon Paper. By means
of this more connected and permanent
View of these facts, they have
been able to take in Conversation &
by Solitary Meditation they were
led to change their Opinions, and
to compose & publish, but with-
=out any Concert, defences of the
events they had intended to discredit
which are now considered among
the strongest external evidences of
Christianity.

3d and Lastly by habits of Composition we enlarge the Retentive powers of the Mind and acquire ease, perspicuity, and correctness in Speaking.

The late Judge Wilson, & W. Atherspoon and Mr. John Adams, were the most copious and methodical Speakers in the Congress of 1776. They spoke often & long but never repeated any thing — Those Gentlemen had been in the practice of composing in the early part of their Lives.

The Morning favors Reading, Experimenting and Study; the Evening invites to Conversation — Daylight for composition and not Lamp light as it is apt to smoke of the Lamps —

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A Student particularly of Medicine
should always like a plant, be
in an absorbing State. —
A Diary should be kept & he thinks
it of so much importance in
Strengthening the Mind that he
wishes it could be made an
early part of Education in all
our public Schools and Colleges.
A Diary by discovering the primary
Objects of attention in a boy would
be a more certain and delicate Mode
of determining his propensity, &
forcing upon that pursuit for
which he was designed by Nature
and in which he would always

accompany the Exertions of his industry
and ambition— For Example— Should
he record in his Diary the eloquent
Speeches, the pertinent anecdotes
and Sallies of wit of the companies
he went into Let him be educated
for the Pulpit— the Bar or the Senate.
Should he record Facts and Opinions
that are connected with natural
Sciences and Philosophy, Let him
be devoted to the Study of Medicine.
If to Battles and Sieges Let him have
a Commission in the Army or Navy
If with accounts of great Wealth
acquired by Skill or Economy in
business— the Counting House—
= If to elegant Public Buildings— An Architect

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Fashions of Dresses — At Taylor-

It the Dishes and Variety at a
Banquet — Let him be sent into
the Kitchen — as a Scullion —

It is because the propensities of
Boys are not discovered or attended
to in early Life by this, or some
other means, that we see so many
Men in Situations for which
they are not qualified —
They form the same Disease in
Society which is known among
Physicians by the Name of
Green Lori — A Boy in keeping
a Diary should be charged not to
record a single anecdote or Reflection
that would give pain to a single

human Creature. Persons who fill their Diaries with such matter may be compared to the Animals that feed upon Carrion. They are unfit for future and healthy Society.—

Medicine without Principles is an humble Art, and a degrading Occupation it Reduces the Physician to a level with the Barber and Nurse—who administer to the appetites and Weaknesses of Sick People.— but directed by Principles it empants the highest elevation to the intellectual and moral faculty of Man.—

"I was an advocate for principles in Medicine" he wishes engraved on his Tomb.——

Lect: XVI

On the Study of medical Jurisprudence.

Delivered Nov.r 5th 1810.

They entertain limited Views of Medicine who suppose its Objects and duties are confined exclusively to the knowledge and Cure of Diseases. it was designed to extend its benefits to the protection of property and Life and to detect fraud and guilt in many forms. This part of qualifies us to discharge these important civil duties has been called Medical Jurisprudence. —

first — all the Diseases of the mind incapacitate persons from exercising civil rights, such as disposing of property and bearing witness in Courts and to exempt them from punishment for the Commission of Crimes. —

2. They are all those circumstances in injuries done to the body in render them criminal in the eye of the Law. This head includes wounds of every kind —

3d. The State of Body in destroyed by persons — also hanging, drowning and famine — wether brought on Voluntarily, or by external force —

5 The Circumstances in Characterise Virginity impotence, Hinitity, & also conception — natural and artificial Abortion, Time & gestation and Child Murder —

6th The circumstances of health which exempt from Military Duty. —

7th all those Circumstances which influence general health as the morbid impregnation

of spring Water, unwholesome provisions—
sources of putrid exhalations, nuisances
& all kinds and Epidemic diseases.

Phrenzy is known by the mind being constantly
in a State of alienation or derangement.

Madness is partial and general.

In the former Persons are deranged
on one Subject only — in the latter on all
In all the grades of Madness there is generally
a preternatural quickness of pulse.

Delirium resembles phrenzy in the suspension
of the Senses and Memory; but it
differs from it in being attended
with intervals of reason which
occur one or twice a day, or every
other day in most fevers —

In no stage of Phrenzy is a person in a Condition to disclose of property, or to contract legal guilt of any kind — nor in the following Stats of Madness —

1. When it is general, that is, when persons talk or act incoherently upon all Subjects. Nor

2°. In its intervals, when these intervals occur after weekly or even monthly paroxysms of madness. The mind in these Cases seldom recovers its habits & correct action. —

3°. When Persons depart in their speculations, conversation and conduct, in a great degree from their former habits. —— Thus hatred to relations & friends who have never injured them — great taciturnity or great loquacity.

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sudden Acts of Prodigality, or economy;
liberality to public institutions at the
expense of private Justice; the evolution
of talents for wit and Chymicy, and
the arts of deception commonly called
Cunning, when contrary to the tenor
of former practices; are all signs of
derangement and should constitute
solid Objections to the performance
of acts which the Law requires to
be performed only in a sound state
of Mind. In all anomalous cases
it will be proper to examine the
State of the Mind by conversation,
by letter writing, and by conduct, as
well as by a change of situation
The Pulse should be examined in

in all the grades of madness is more frequent than in health. This circumstance alone induced Dr. Shippen, Griffits & myself to unite in a certificate of the insanity of a man who was condemned to die - consequently his Execution was suspended - and finally pardoned he had a companion (they were whisky Boys) in our Examination of the Pulse Dr. S. ascribed the frequency of the pulse to fear - I requested him to ascertain the pulse of his companion in Guilt & fear - he did so & found the pulse Natural & slower -

There are certain morbid states of mind
in which Persons should not be con-
=sidered responsible for their actions
=perty or committing Crimes &c—

When the Mind is deranged on one
Subject only — for instance Count
Chamupas mentions, one of the princes
of the Bourbon family supposed
himself to be a plant; and after
fixing himself in his Garden, called
upon his Servants to water him.
Notwithstanding this Strange alienation
of mind, he was sensible in conversation
on all other subjects and remarkably
Correct in the management of public
and private business — There would
certainly no reason at by Mind Jackson

should not have suffered of his property
or why he should not have suffered
the penalty of a breach of the
Criminal Law of his Country.
but we sometimes meet with persons
equally sane upon all subjects except
one, in whom a word, or an action
that revives the single subject of
derangement, never fails to misdirect
the whole Mind in Disorder —
I cannot determine whether these Persons
should be admitted to the same
judicial Privileges.

2. "A Bee in the Bonnet" — Rapid
action & incoherence — They should
be admitted to the privileges of Property
and should suffer punishment for
breach of Laws —

3 General Weakness bordering on
Insanity — held property & suffers
punishment — provided he has simply
discovered a knowledge of the use & Value of Money.
The Will of Lady Ely was affirmed on these principles in 1775 in Parliament.
4 A Weakness or partial loss of
Memory — held property & suffers
punishment — for it is possible a
Man may forget the Names & Number
and even the faces of his Children
and yet not forget that they are
the Lawful heirs of his property. —

There is sometimes a Devastation
of Reason induced by Falls, by terror,
or by some violent disease. The
Mind of Man swift as the Sun
it Can Reason in Infancy in consequence
of an abcess in one of his Eyes —

~~Nearly everything is lenembered of what~~
~~passes in the second grade of Madness.~~

Reason in Delirium, like the Sun in a
tropical Climate is obscured only by a
transient Cloud;

Delirium is often confounded with Madness
as related to the civil and criminal
law of our Country and that in
such a Manner as to pervert truth
and justice. —

1 It is attended with Remissions or
intermissions in which the Mind
suddenly recovers its Natural & healthy
State —

2 In Delirium there is generally the
absence of muscular Action — In Madness
there is often great muscular excitement.

3. In Delirium the Eyes are the principal channels of false perception to the Mind. — In Madness the Ears principally deceive the patient, and hence the reason why they so often talk to themselves. —

4 The appetite is suspended in Delirium this is rarely the case in Madness —

5 Scarcely any thing is remembered of what passes in delirium. Nearly every thing is remembered of what passes in the second a moderate grades of madness. after a recovery from it —

The same objections occur to persons affected by Delirium performing legal acts, or becoming criminal by perpetrating such as are illegal that occur when they are affected by Phrensy.

the cases in which they may perform
the one and commit the other, are
in the intervals of their delirium
the mind is sometimes restored for
a short time to a sound state in a
paroxysm of delirium by the following
Causes. —

1. By an erect posture in bed or in an
arm Chair.
2 A Steam of cool air, or cold
water or Ice applied to the head.
3. The unexpected sight of a friend. or
4. The Visit of a Physician;
5. Terror —
6. There is often a sudden Restoration
of reason a few hours before death
from one of the causes that produce it
in Madness. —

7. There is sometimes a moderate degree
of delirium upon a person's first
waking from sleep; which goes
off as soon as the objects around
him have time to revive their
natural associations in his
Mind. —

8. Persons appear to have recovered
from their delirium who are devoid
of their consciousness with respect
to the lapse of time, and the situation
of their bodies. —

9. Sir John Pringle takes notice
of a suspension of Pulsation accompanied
with stupor or what is called
Coma, — which is removed for a
short time by rousing the Patient by
Means of a Noise, or by talking to him —

However brief a Will may be, it
should always be deemed Valid,
More especially if property be disposed
of agreeably to former habits, or
to the ties of Consanguinity. —
When the Symptoms of Delirium
and Madness are united, the
predominance of the former may
be known by Juridical Sweats.
These occur only in delirium, and
never in Madness. —
A Physician ought never to suffer
a Patient to die w^h^o has a right to
and is in a condition to make a
Will without informing his
friends of his probable or approaching
dissolution, and suggesting to them
the propriety of his performing that act.

we owe this Duty to his Family &
to Society. The Suggestion to the
patient should never come directly
from a Physician. — He should
at all times appear to him, as
the Minister of hope by means
of a contrary practice, sick
people I believe have sometimes
been hurried out of the World.
Dr. Lobb of London reproached
himself to the last days of his
Life with having been the cause
of the death of a Patient, by yield-
ing to the importunities of his
friend in advising him to
make his Will, immediately
after he prescribed for his disease.

The Laws show no tenderness to acts committed in a fit of intoxication— the understood circumstances I think they should— as the first time— or being accidentally made drunk.

Moral Derangement in the domestic affections— The Poet Savage furnishes an instance of the hostility of a Parent to his Children— it was unquestionably the case in a respectable citizen of Philad.a who while under the influence of low Spirits said to one with great distress, that he had lost all affections for his Wife and Children— and that he would not rise from his Chair to serve them from being butchered before his Eyes— Should a Man in this Morbid State, bequeath the whole or the greatest part of his Estate, to a Church, or other public institution, or to a Stranger, to the injury of a family of

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Children who had never offended him,
and whose Incapacities, or Lunk in life
as well as their Blood, entitled them
to be his heirs, he should be considered
as morally deranged; and his Will
should be set aside as promptly as
if he had disposed of his Estate in a
paroxysm of intellectual derangement.
The Laws, and the Voice of Nature,
in such a case, should declare a
Volume of Reports in favor of a
Contrary practice. ——

The Punishment of Death should be
abolished in all Cases whatever.
even for the Crime of deliberate
Murder itself. —— While the blood
of Abel and all the innocent blood that
was shed under the Law, called for Ven-
= geance, the blood of the Cross "which

speaketh better things" calls only for the
repentance & confession of the Sin of the
Murderer. — "The Son of Man came
into the world not to destroy Men's
Lives but to save them" —

the command of their Wills, and
sometimes advise their friends to avoid
coming near them lest they should
bite or otherwise injure them.
A propensity to murder sometimes
takes place also in this State of Insanity
viz of the will — Even the nearest and
dearest relations. This was the case with
Mr Pinel in respect to his wife —
And the Author has mentioned several
instances of Homicide Persons having
committed Murder in this State of
Insanity.
He visited a Lady in this City to Dr Physic
of the most amiable and elegant
accomplishments in this in describing
her Disease which was chiefly seated
in the Nervous System she said — "I am
blessed with one of the best of husbands

and a family of promising Children,
whom I love most affectionately;
and yet in the Paroxysms of my
disease and with the perfect exercise
of Reason I wish for an axe that
I might plant upon their heads and
lay them all dead at my feet."
has she obeyed the impulse of
her Will — ~~the~~ it is probable —
that all her Elegant accomplishments
& the rank of family connexions
could not have saved her from an
ignominious Death. —

Those who take away Life under
the influence of this morbid State
of the Will ~~do~~

1. It is committed without provocation or Malice
2 It is usually committed upon dear Relations or friends.

3 It is sometimes committed upon a Child
or an Idiot in order to provoke death
by the Law;
4 It has been committed by Parents on their
under the pressure of extreme poverty—
5 Under delusive Opinions in Religion
6 Greater Cruelty attends it than common
Murders—
7 Never accompanied by Robbery.
8. Sometimes followed by Suicide.
9. It is never or rarely succeeded by
an attempt to escape — but gives
themselves up & often demand the Rigor
of the Law. —
What should we think of a Surgeon
were we to see him cuts off an arm
or a Leg, because in its convulsive
motions, it injured a toilet or overset
a teatable? It is equally absurd and

and for more cruel, to inflict the
punishment of Death upon a fellow
Creature, for taking away a life
Under the influence of a deranged
State of the Will.—

This State of the Will sometimes
discovers itself in acts of Theft.
The Sister of the Lord Mayor of Edinburgh
would now & then take a Silver
Spoon, but the Pain of her
Disease was relieved, if she could
only convey slily into her pocket
a piece of bread.

No Measures are taken afterwards
to derive any profit from the Matters
that are taken or even to conceal them.

No humane Jury could convict a Person
under such Circumstances, but would consign
them to a Hospital for Cure.

Whatever Difference there may be
in the Laws relating to Wills in the
different States, the following Circum=
=stances I believe are required by most
of them, in order to render them Valid

1. That they should be Subscribed by
two or more Witnesses. (in this State
three)

2. The Witnesses should be fourteen
Years of age, and should not be the
Heirs or any part of the property
bequeathed in the Will.

3. A Legacy bequeathed to an Executor,
who owes anything to the Estate, cancels
the Debt, unless the Estate should after=
=wards appear to be insolvent.

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4. If a Man have a Wife by him, and have added to his real property after he has made his Will, it will be necessary for him to add what is called a Codicil to it, Or to make a new one.

5. If the Wife of a testator be pregnant, it will be necessary for him to make a Special provision for his posthumous issue —

6. From the transient duration of a Man's reason, or the appearance of a speedy termination of his Disease in Death, or if from the want of implements for writing, or if a person capable of drawing a Will, or if he should be unable to subscribe his name or to make

a substitute for it by a Mark, he may
dispose of his property, and name his
Executors verbally — Care should be
taken in this case that there should
be three or four witnesses present,
that they should all be perfectly
disinterested; and that the bequests
of the deceased should be committed
to paper as soon as possible afterwards.
All those States of mind which forbid
Persons disposing of their property, and
exempt them from punishment for
Criminal acts, should preclude
them from being Witnesses in a
Court of Justice — The testimony of
an habitual drunkard ought not
to be admitted (he thinks), according
to Lr Wm Temple —

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The Will is liable to two States of discard.
It sometimes acts without the Stimulus
of Motive in an involuntary Manner;
and it is sometimes incapable of Action
from the Stimulus of the most powerful
Motives upon it.

A Patient of mine whose habits were in health
taciturn and reserved. In an attack
of fever he spoke constantly, and com-
=municated to his friends a minute
history of his private affairs with
great correctness, and added, while
he was doing so that he was conscious
that he was acting in an unusual
Manner, and contrary to his habits;
but that he could not help it. —
Patients in the Hydrophobia, with the perfect
exercise of their Reason now and then lose

Two Lectures on the Pleasures of the Senses.

Lect I.

Since the Lot of primeval innocence
pain appears to be the natural State
of Men. Children generally cry as soon
as they come into the World from painful
impressions — even musical tones give them
pain according to Dr Hartley. —

I I shall Enumerate the pleasures of the
Senses —

II I shall enquire into their proximate Cause

I shall consider pleasure as a Unit —
in which I shall include all those
Sensations that are known by the
Names of agreeable, gay, delightful,
joyful, and Luxurious. —

1st Touch — They are (meaning the Senses)

1. That degree of Sensation in which Perfect

health, or a regular and natural Excitement
of the whole System consists. it is supposed
to arise from the Secretions being performed
ed in an easy and natural manner
the absence of this natural & healthy
degree of Sensation is accompanied with
debility and Pain. The truth of this
remark is confirmed by the general
use of Tobacco, Opium, Stramonium
and ardent Spirits. — They are all
resorted to in order to elevate the System
to the point of natural Sensation
Or to a healthy and pleasant grade
of Excitement. — They were first
adopted to obviate Debility and pain
from Morbid Causes; but they are
now generally used to remove the
Consequences of their own Stimulus upon
the Body. Dr Johnson ascribes the genius

use of those artificial means of producing
Natural Sensation, to the predominance
of Misery over Happiness in the World;
but I cannot believe this to be the
case; for where one person makes use
of those articles to remove unpleasant
Sensations from Misery, thousands use
them in the first instance from imitation.
They are continued afterwards from
habit.

2. The Commerce of the Sexes. —

3 The action of the air upon the Sur-
face of the body of a certain temperature.
In Italy it is felt several months in y^e year.
hence the Captives to Go poets & Travellers
speak of the weather of that Country.

4 The Warm bath. Dr Franklin was
much attached to it particularly in the
latter part of his Life. —

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5. Certain Exercises — Walking, Riding
going
on easy horse Riding in a Carriage,
Sailing, Swinging, dancing and the
Chase — Sailing in a Balloon —

6. The Effects of certain Medicines or Liquors.
Opium is more remarkable in inducing
Pleasure, than any of the Arts —

7 - Sudden Relief from extreme pain —

8. Soft and Smooth Substances applied
to the Skin, such as Silk, Velvets,
fur and Eider down —

9 Certain Stillations — Coveling the
head &c —

10 Rest after Labor —

11 Tickling — 12 Warmth in Darkness
and Silence

13 — Luxury & Independence —

14 Scratching —

15 The bodily pleasure which sometimes attends dyeing — (this is not generally the case) but it was the case with Dr ~~Coulson~~ Wm Hunter & Genl Butler and Adrian who spoke of the pain and bliss of dying" I have suspected that the placid and even smiling Countenances which we sometimes observe in dead persons, may be pro=duced by the last sensation of the body being a pleasant one. just as the distorted or dejected countenances of other dead persons seems to arise from the last sensations of the body being painful — The tender & delicate skin of a Child about eight or ten Months old yields great pleasure to the touch.

Dr Blackmore mentions a Gentleman who had a tedious inflammatory of his Eyes kept up by intemperate eating— his Physician at length told him, he must either subdue his appetite or be content to lose his Eyesight— I have seen enough said he Doctor, but I have not eaten enough. I will eat on.

Smelling

The most delicious

He compares the smell of different substances to musical tones— There is something like bass in the smell of the Magnolia and the Lilac. The low & Pink resemble tenor; and

the jonquil, the Minionet and Wall flower are striking analogies, of the softness and delicacy of treble tones. — The fragrance of flowers is much increased by the dews of Eve: which Reason they recruit the most pleasure in the Mornings & Evenings.

Where shall I find language to describe all the Pleasures of the Eye?

Light, Colour, figure, motion, Weight, distance, and Magnitude, all combine to form an Ocean of Pleasure upon this Sense. —

I To Estimate the pleasures of light properly, it will be necessary to read that elegant passage in Milton, in

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which he describes the want of Light to perceive it.

2 Colour affords pleasure to the Eye from many Sources. Blue in the Sky &c. —

3 There is a certain figure which is calculated to give pleasure to the eye. Hogarth places it in a curved line, which he calls the line of beauty. — It is in viewing a beautiful human figure whether Male or female, that the "Eye is never satisfied" Even the images of it upon Canvas, and in Marble are delightful. The Victim of Queen Mary of Scotland, and the Statue

of Venus of Medicis, Leave after
brought travellers back when
about to leave them half a
dozen times, and sometimes chained
them for hours at their feet.
The next animal to treat in beauty
is the horse.

4 Objects in motion most pleasing as
undulating forest and waving cornfield.
and the flowing Stream of water. —
The Motions to be pleasing should be
gentle; ~~and they afford~~ and they afford
the most pleasure when they are in
the line of beauty. Hutton understood
the first of these remarks; hence he
describes the angel who visits our first
Parents in the Garden + ^as slow moving

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without Steps."

5. Height, Distance, Magnitude &c are so often united in the Works of Nature & Art –

Mr Bruce speaks in high terms of the pleasure he derived from viewing the Cataracts of the Nile which was forty feet in height, and half a Mile in breadth. –

6. Contrast is a source of Pleasure to the Eye – Hills and Dales, Rocks and Streams of Water, gravel walks in a Garden &c.

A Young Child's Their smiling and innocent looks relieve the Eye from its familiarity with the Solicitude, or the unhappy and guilty passions, which so generally discover themselves in

the faces of persons in adult Life.
it is for this reason that wise and
good men often resort to the country
to forge for a while the pressure of
study, business, vexation, & Cares.
Luther, Sir Wm Temple — &c

Dr Priestly was so deeply impressed in
the power of Children to impart
pleasure by their looks & gestures,
that he said to a person, who spented
in a large Company that our
Saviour never smiled "It commands
us to [illegible]. He must have smiled
when the little Children were
brought to him to receive his
blessing." — Mr Nimesewitch aid-
de-Camp to General Kosciusko, informed

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to correct in it. — This is an error. —

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that after being confined two Years in a prison at St Petersburgh, the Sight of a single green Leaf gave him a degree of pleasure which he never before experienced from the finest Rural prospect. —

Mr Gray, the celebrated english Poet, has described how much the pleasure of this Sense, is heightened by Relative Circumstances, in the following Lines —:

"See the wretch that long has tost,
" On the thorny bed of pain,
" at length Repair his Vigor lost,
" And breath and Walk again.
" The meanest flowret of the Vale
" The Simplest Note that swells the Gale
" The common Sun, the Air, the Skies,
" To him are Opening Paradise

Ears

We are besieged with pleasure from this Source. Soon after we come into the World, the sweet and tender Voice of a Mother insinuates pleasure into our opening Ears. Public Theatres strive to charm as much by the Melody of their Voices, as by their eloquence. The Notes of the human Voice as exhibited in Conversation are various, and equally pleasing, according to the taste of the Ear. — They may be divided into the dove-toned, the bell toned, the Velvet toned, and the Voice of Childhood. The Cast of these has produced medicinal effects. — But the ~~tones~~ of pleasure derived from the tone of the human Voice is feeble when compared to that which is

to consist in it. — This is an Error. —

derived from Music, both vocal & instrumental. Of this it would be easy to multiply Examples — The heathen Poets tele us of Hell being moved by it to surrender up its prisoners. —

The celebrated Handel once fainted in performing a part in his Oratorio, Called the Messiah. The Count Oginske a Polish Gentleman, we are told, spent twenty five thousand pounds sterling a Year wholly in Musical Entertainment,

The feathered Songsters greet us in our morning and Evening Walks. — Certain Quadrupeds & Insects. The Winds Rain &c — as Lowing of Cattle humming of Bees — The hollow murmur of the Breeze passing through the lofty Pines, to the gentle dropping of Rain upon the roof of a house, &c —

In a word, our bodies may be compared to a Violin: The Senses are its strings; every thing beautiful and Sublime in Nature and Art is its bow; the Creator is the hand that moves it; and pleasure, nearly constant pleasure, the Necessary effect.

Dr R. thinks that pleasure or Good greatly predominates over pain or Evil in the World — Were it otherwise very different would be the Condition of Mankind. In the words of Dr Price "Evil has been intended to predominate over Good" the Lower Animals and all inanimate Nature, instead of being made to minister to our Delight, would have been made to harass and annoy us — The Bee would have been

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to consume it. — This is an Error. —

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without her honey; and the rose with-
=out its fragrance. The fields would
have been without their cheerful
Green and fragrant flowers.
The fire would have scorched,
without warming us. The light
of day would have dazzled with
=out cheering us. Every breath
of air would have cut us like the
point of a sword. The appetites
and passes would have been
the instrument of torture, and never
of pleasure, except when turned out
of their common course by incidental
Causes. Every touch would have
been felt like the rubbing of a Wound;

Every taste would have been a bitter
and every Sound a Screame." —
The pleasures we Derive from Smelling
are of the Shortest duration, owing
to that Sense being so Soon Satiated.
The Eye retains its power of being pleased
a little longer; but the Eye and the
Tongue possess the greatest Capacity,
not only for Numerous but durable
pleasures. —
Harmony of Action in Music or Otherwise
Produces pleasure — and & contra
Pain. —

Pleasure may be compared to a clear Stream
of water flowing with Rapidity through
a Straight and narrow Channel;
While Pain resembles the Same Stream
Rendered turbid by flowing with
accumulated Velocity, and in every
possible direction. ——— 238

to consist in it. — This is an Error. —
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The Causes of Pain are mechanical & Chemical. The former are from impulse distention, and pressure; the latter arise from the action of irritating substances upon the body. - They both produce their effects by inducing deranged actions or a tendency to disorganiza- = tion in the Nerves upon which they act; and they are both attended w/ an accumulation of Excitement in the part which is the Seat of the pain. ——

Pleasure and Pain are related to each other. Fable adds that Jupiter joined them Together in Such a manner that who- = ever embraced one, could not avoid embracing the other. Even the Words of a well Known Song bear testimony to the affinity of Pleasure

to pain:

"Those clear eyes! how soft they languish!
"Feel my heart with rapture beat!
"Pleasure turns almost to Anguish,
"When the transport is so sweet.

Does distention in a high degree produce pain? a less moderate degree of it certainly produces pleasure, as in the effects of Wine, the warm bath, temperate air, and of opium upon the nervous system.

2. Do certain Motions &c —

3 A certain degree of relaxation or debility inbite pain? a moderate degree of it produces pleasure. as in rest after Labor. and Ease after two Violent Paroxysms of Pain. —

It is most obvious after Parturition.

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to consist in it. — This is an Error. —

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Excess of Light produces pain - and glaring
Colours - certain figures, bodies too
distant, and when any large and
broken into Angles, give pain to
the Eye. The same things give pleasure,
when Varied in Degree or form. -
Excess of Light & glaring Colours produce
too great a Stimulus upon the Eye.
but the Morning & Evening light,
the light of the Moon, the lovely
blue of the Sky, and the delicate
green of the Surface of the Earth,
all impart to the Eye a degree
of pleasure owing to an inferior
degree of the same Stimulus
which produces the Pain that has
been described. -

The pleasure we derive from beholding a beautiful face is probably produced by the reflections of the rays of light upon the eye, being in such an oscarts order as to produce certain harmonious motions in the Retina of the Eye which are necessarily connected with pleasure. and may not the pain we feel, from viewing deformity, be occasioned by such a reflection of the Rays of Light from the body, that is viewed, as to produce discordant, and of course painful or disagreeable motions in the organs of Vision. — Indeed relaxation is so extensive a source of pleasurable sensations that Mr Burke, in his treatise on the Sublime and beautiful, makes the proximate cause of pleasure wholly to consist in it. — This is an Error. —

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Pain depends upon an excess of the same impression which produces pleasure. I said likewise that while weak impressions become acute or strong, strong impressions become dull or feeble by repetition. — The conversion there- — fore of ~~pleasant~~ painful into pleasant Sensations, depend upon the diminution of impressions from the painful down to the pleasurable point or Grade; and perhaps upon a change, from disorder to order, or from discord to harmony, in the Sensations excited by them. —

~~This at once ans~~ I mentioned formerly when treating upon the Nervous System, that certain Sensations originally painful or disagreeable, became pleasant or agreeable from habit. ~~The reason of this will now be obvious to you.~~ This

at once explains the reason why the air which gives pain to a new born infants, becomes in the course of a few Months one of its greatest Pleasures. It explains the reason likewise, why Labour, which is at first accompanied with pain from the distention and pressure of the Nerves, becomes pleasant from habit; and thus affords consolation to us in contemplating the Extent of this supposed Evil in our World. — It is thus we account for tobacco, ardent Spirits, Opium, Garlic, and Olives, which are so disagreeable to the taste, the first time they are taken, becoming by Repetition extremely agreeable. It moreover disposes us to believe a fact, which is mentioned by some travellers, and which

would otherwise appear incredible;
that the Negroes in the West Indies,
after agonizing for an hour or two
under the Whip, sometimes burst
out a laughing, from a sudden
sensation of Pleasure, in the face
of a merciless overseer. — The pain
in all these cases wears down the system
to the grade of Pleasure. —
Cutting the flesh in Surgical Operations
have sometimes given pleasure — by
taking off painful impressions and bring
to the point of pleasure. —
Pain when very intense or continued
a long time destroys itself by the force
of irritation, destroying the continuity
of Nerves or upon its rendering them
paralytic, and thus destroying their
sensibility. —

One Reason why women bear pain with more fortitude than Men, or to less Vehement complaints, arises probably from their Nerves sooner attaining, under its prepare, the paralytic point; and this in Consequence of the more delicate texture of their nervous Systems.

The final Cause of the Pleasures of the Senses is - They were intended to serve as the preserves of our Existence. They prompt us to eat, to drink, and propagate our Species. They impel us to action and to test. They allure us from our beds in the Morning, & drive us to them in the Evening. They invite us to explore the Works of Nature and Art. They are the Channels through which health is communicated to

the body, and pleasure and Activity to the Mind; and they should be the avenues through which we should be conducted to the great and original fountain of more durable & substantial happiness. But numerous and delightful as all these pleasures and durable as some of them are, they have their alloy. In the first place they cannot be enjoyed without good health: What are all the pleasures of feeling, tasting, and smelling, to a Man Confined to his bed with a fit of the Gout? and what are all the delights which light, Colour, figure, Lights, Distance, and magnitude impart to the Eye, or which natural

or artificial Sounds impart to the
Ear, to a Man who is afflicted with
a Paroxysm of Melancholy? How
&
& and lastly, all the pleasures of our
Senses are of a short duration.
old age seldom fails to impair them
to such a degree, as to antedate the
more complete and certain Extinction
of them in the Grave. — In these
Evils Heaven is still Kind; Since we
are taught by them to aspire to the
More Sublime and durable pleasures
of the Mind. —

Mss. Sr.

Moral Philosophy.

Moral Philosophy hath been defined, the Science of Manners or Duty which it traces from mans nature and condition, and Steers to terminate in his happiness. — In other words, it is the knowledge of what ought to be, or the application of Rules that ought to determine the choice of voluntary Agents. —.

The Object of this Science, is mans duty or Conduct, its Offices to direct to that conduct, its end is the attainment of Happiness, the Means it employs are the Rules for the right mannagement of our moral powers, or general expressions of what is good, suited therefore to regulate the choice of voluntary Agents, or inteligent beings. —

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This branch of knowledge is called Philosophy because it treats of ye principles of Duty illustrates and enforces its various parts upon ye footing of natural reason. —

The study of it doth not interfere with, but is subservient to True Religion. —

To ascertain ye will of ye Deity with respect to man and the Rules of moral Conduct, man's Nature, Moral Constitution and condition ought to be attended to. — .

The principle constituent parts of human Nature, are Body and Mind. — the latter is what we are here principally concerned with, the physical history of which is the ground work of Moral Philosophy; yet still it is Mind or Spirit connected with Body. —

In treating of this branch of Science, where

the leading phænomena of man's life and
Nature are explained, we are to comprehend
the Theory of 1st individual and of 1st Species.

The principal faculties of the Soul, are
the Understanding and the Will, — the first
may be defined, "That power by which the mind
perceives, and forms Ideas of things, in order
to arive at truth — The latter is that, by wch
it is self determined to seek what is agreeable,
to act, or not to act with a view to happiness.
These, with all the modifications are only
different ways of operating, which belong
to 1st same simple, undivided subject. —

To the Understanding are commonly
referred, first, Animal sense and simple per-
=ception, — 2d Intuitive Judgment, — 3d Reasoning
and 4th — Method, — To 1st Will are commonly
referred Joy, & Sorrow — Desire & Aversion. —

In treating of the Understanding, perhaps the Article of Conciousness should take the lead, because in all its appeaations and feelings, the mind is concious of itself; it is also concious of those metaphysical, or geometrical Axioms, which are ye conditions on which, all thoughts proceed. —

It is by means of the Organs of sense that ye Mind perceives, — these are five.

The senses in reference to ye Understanding may be defined "Those connections of ye Soul by which certain feelings or perceptions are raised, upon certain objects being pre=sented" — they are external or internal.

With the operations of ye Understanding are connected Memory, Immdgination, Abstraction &c: —.

With those of the Will, Propensity, - the Moral

Sense

Sense, - Liberty, - Sentiment, Sympathy, &c. —

{ Vol. II.

There are Senses, termed reflex, or subsequent, that seem to have some relation to the Will, as also to the Understanding — they are those fine delicate powers, by which certain new forms or perceptions are received, in consequence of others previously observed by the external or internal Senses. —

Propensity is the minds activity from original choice; it is either Animal or Rational. —

The Moral Sense is that original determination ~~to the instinct and feel~~ of the Mind which is an inlet to the impressions of Moral good and evil. —

Liberty is that force or power of the mind, whereby it regulates its operations, as it pleases.

Sentiment is a state of mind relative to supposed good or Evil. — Under this head may

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be comprehended the various passions and affections. —

Sympathy is our fellow feeling with any passion whatever. —

Volition is the act of y^e will in free deter=mination. —

The Nature of Good.

To apply the laws of morality to y^e mind, is the way to be happy. —.

Happiness, in the general Idea, is "That internal satisfaction of Mind which arises from the possession of Good" — Strictly speaking it is the possession of the greatest Good; — by y^e term Good is meant whatever is agreeable to the human Nature, in respect of preserva=tion, utility & perfection. —

The Objects of human pursuits may be distinguished into external and internal Good; or distributed into these three heads —

(Of) the Goods of the Body — of Fortune, and of the Mind. —

With respect to human Nature, the state of greatest enjoyment, and least suffering, coincides with the state of greatest of greatest perfection. —

The principal ancient Systems with respect to good and evil, or happiness and the opposite condition, were, the Epicurean, the Peripatetic, and the Stoic — the first and the last were extremes. — The other supported by reason and common opinion. — Here however Virtue was held to be of y^e^ greatest moment. —

Among the objects of Happiness, the Deity is supreme. — Virtue, a Life according to nature, and happiness are corelative terms having a mutual respect to each other in all essential particulars. — Perfect Virtue

and perfect Happiness are the same. —
Virtue consists in good dispositions of y^e^ mind,
and in the external expressions of them, or
in the justly proportioned Oeconomy of
our various moral powers, and in acting
agreeably to that Oeconomy. —

The Virtue of an action and its moral
fitness convey the same Idea, viz^z^ the agreem^t^
of y^e^ actions of any inteligent being with
the Nature, circumstances, and Relation
of things. — .

Different accounts have been
given of Virtue; some affirming that
it consists in propriety, others in Prudence
/meaning a view to private interest/ —.
And others affirm that it takes its nature
and completion from disinterested Bene-
-volence! —.

These Systems have severally some

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defects, and their excellencies also. —

"By what faculty of the mind is Virtue recommended to us? hath been a Philo-=sophycal Question — Some have said "By Self Love"; others, "By reason"; Some, "By a moral Sense"; and others; "By a Modificat-=on of Sympathy"; — connected herewith is moral approbation in regard to its na-=ture, Object & Principal. —

Moral Approbation is y^e judgement formed of Characters, or actions, as being excellent or just, — its Object is either some disposition of y^e mind, or external action; — its Principle is benevolence, or what D^r Ferguson terms "The Law of Soci-=ety, combined with the Law of estimation."

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Moral Obligation.

The obligatory powers of Virtue are founded upon its immediately perceived agree=ableness to our Nature, and condition, & its conduciveness to general, and private felicity — The obligatory power intended here is of the moral kind. —

Moral Obligation in general, may be defined "A tie consisting in the impres=sions made upon the Mind, by motives that determine us from choice, to act properly"; or it is a restriction of Natural power, produced by competently efficacious motives. — It varies in respect of strength, in proportion to the Nature & force of the motives, and the diversity of their impressions on the Will. —

A State of moral Obligation is "That in which ~~men are impressed~~ men are impressed by the Sanctions of Deity." —

A Moral Agent is one who is subject to moral obligation. —

The Idea of moral Obligation is derived from the Author of Nature, in the same manner with other original perceptions. —

There is, unquestionably, in man, a Moral power of perception, essential to y^e^ constitution of his Nature. —

In the Idea of Moral obligation, we take in Reason also, and the authority of a Supreme being. —

The summary view of the principles of moral obligation is as follows. —. We consider y^e^ moral sense, as y^e^ first inlet to moral Ideas. —. We consider Reason as adverting to, comparing, improving, & establishing the dic-

tate

:tates of that sense; and then, the Will of God carrying with it an efficient sanc:tion, and compiling the Obligation. — Various Hypotheses have been ~~suggested~~ suggested on this subject. — The chief are those, where obligation hath been deduced from one or another of the abovementioned principles taken alone. — —

Circumstances affecting human Conduct, Human actions are such, as either in their origin, or direction depend on the human mind — of these there are different sorts — . Circumstances affecting human conduct or actions, relate to the Will and Understanding — .

The Importance of the action and abilities of ye Agent — as to ye first, Ignorance and Error are defects that have an influence

The merit or demerit of an action consists in its being advantageous or disadvantageous to mankind in its nature and consequence; and being done with a good design or y^e contrary. —. Merit & Demerit have also a relation to approbation esteem &c. —

In this view it is,

"A quallity which intitles one to the approbation ~~of~~ esteem and good Will of his superiors, or equals, and to the advantages resulting from thence". —

It is an essential quality of humane actions to be susceptable of Imputation. —

Imputation is a judgment declaring that a person being y^e moral cause of an action commanded or forbidden by Law, is to have the just y^e same set to his Account, & to be answerable accordingly. —

Imputation is an act.

Imputability - a quality.

To make an act merit imputation, three circumstances must concur.

1st. It must be of an imputable nature

2d. The Agent must be under some obligations of doing or omitting it.

3d. There must be some connections between the action and its consequences, and wt. the Agent must be supposed to know. —

By the application to human nature, is meant "The passing a judgment on their morality by comparing them with yt Laws". This is done in two ways, ie, as we judge of our own actions or yt actions of others. The first is called Concience, yt latter Imputation.

Concience hath been defined "Amans judg=ment about his actions, as to their conformity to the Law" —

With respect to the Law, yt usual divisions of concience are into Right - Erroneous, - doubtful, - & scrupulous. —

Concience is only a subordinate Rule. The sanction of concience is constituted

by the satisfaction of doing right; and the Remorse of doing wrong. —

The degree of Virtue in any given action is to be estimated by considering the degree of good produced, the Intention of the Agent, & his Abilities, —

To state the Sum of Benevolence in general; it is directly as y^e^ moment of good; and inversely, as y^e^ ability. —

Different Branches of Virtue.

Virtue, is a qualification of the mind principally; but still it essentially implies all y^e^ required effects of that qualification. —

Sometimes y^e^ Virtues have been distinguished into the intelectual, & Moral. —.

The followers of Aristotle define it "A consideratе habit of mind preserving Mediocrity according to right reason". Land had respect to certain qualifications of the mind, tending to preserve that mediocrity. — These they called "cardinal Virtues." w^ch^ they

reduced to four, deriving all the other virtues from them. — This division is by no means an improper one, in whatever view y^e^ subject be considered. —

For combining the intellectual part of Virtue with y^e^ moral in general, — its constituents are Disposition, Skill, Approbation, & Love, — Accordingly Virtue hath been divided into Justice, Prudence, Temperance, & Fortitude. — Justice is "An habit constantly regarding y^e^ Rights and happiness of mankind." — Prudence is an habit discerning, & distinguishing the Vallue of ends, and the fitness of Means. — Temparence, is "Abstinence from inferior pleasures w^ch^ mislead our pursuits." — Fortitude is "The power to withstand opposition, Difficulty, and Danger." — Justice may be divided into y^e^ perfect, or rigorous, and imperfect or not rigorous. — "The duties refered to this Virtue are either private or public." —

The first are Innocence, Candour, Piety, Friendship, Gratitude, Liberality, Civility, Charity, Politeness, &c. — The latter are Allegiance on the pt. of the Citizen — Protection on that of the Magistrates, and public Spirit in all. —

The Duties referred to Prudence are Decency, Propriety, — Modesty, Economy, Decision, Caution &c —

Those refered to Temperance are Sobriety and Application —

Those refered to Fortitude are Patience, Intrepidity, Constancy &c —

— Division of Virtue in another view, According to the several objects towards whom the Virtues are expressed, they may be distributed under three general heads. — As the Objects are the Supreme being, — Our fellow men, — and ourselves, — the leading characters and heads of duty are, Piety, Benevolence, and Selfregard. —

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1st Duties towards God.

At the foundation of these, is ye belief of his existence. — This belief has been universal. It is suggested by circumstances that occur in all Ages and places. It is the result of a natural, original perception in man. We clearly perceive intention or final causes in all things we have a knowledge of, these reveal ye existance of God; they are the Language that convey ye greatest of truths.

Connected with the belief of the existence of God is the consideration of his Attributes, — these are his characters suggested by his works. — They may be refered to five heads Unity, Power, Wisdom, Goodness, & Justice, Piety consists in right opinions concerning God; and in affections, obedience, & worship suited thereunto. — The internal affections we should entertain are Reverence, Love,

Submission, Trust, &c. — These constitute the worship w^ch is internal. — External worship is founded on the same principles, and is equally obligatory. — Christianity completes the true System of Divine worship, the Scheme of pure Obedience, and Plan of Happiness. —

Duties to Mankind.

These are grounded on y^e natural relation we stand in towards them, — This Relation is pointed out by correspond^t natural affections. — Hence these duties, the Social. — The general term expressing them, is Benevolence, — The particulars w^ch this includes may be stated thus —

1^st There must be a perfect Inoffensiveness.

2^d There must be an exact fulfilment of the claims of others; this is strictly Probity, or Justice; which implies Equity, Truth, Fidelity &c. in every possible case and circumstance. —

3^d The Mind must then expand itself in Charity, by w^ch we mean Benevolence, in some of its

finest expressions.— Herein are comprehended Sympathy, Compassion, Tenderness, Forgiveness, Clemency, Forbearance, Hospitality, Candour, Affability & Benificence. —

4 Immediately connected with y^e^ preceding are Liberality, Magnificence, Generosity.

5^th^ To these we may subjoin, as entering into the Spirit and manner of all our inter=course with men, Friendship, Condescention, Meekness, Quietness, Peaceableness &c. —

Duties respecting Ourselves.

These are resolvable into a rational, calm Self-Love, — These combine the Law of Self=preservation, and the Law of Progression, as it hath been termed, or a disposition to better ourselves, including meanwhile a Disposition to Society, or y^e^ Law of Society.

A general Title that there may fall under is that of human Virtues. —

Here, one which may be considered as cardinal comprehending all others, is Temperance in its largest acceptation —

This implied a due application of the intellectual powers, and a well adjusted manngment of the passions and affections —

With regard to the intellectual faculties or powers, the general term comprehending them, is moral Wisdom, or prudence —

Those relating to the will and affections may be arranged under the order following 1st Humility, 2d Equanimity, 3d Sobriety & Chastity 4th Forbearance, patience, & Fortitude, 5th Contentment, Oeconomy, Diligence and Frugality.

In the important business of human duty, the present state is to be considered as preliminary to a Better &c.

Excitements to Virtue &c.

Besides the motives arising from its intrinsic excellency, fitness, beauty, connection with and tendency to produce human happiness; there are other consideration from whence motives may be derived, or

inferred to this study and practice of it;
These are chiefly two. — 1st The being &
providence of God; 2d The Immortality of
the Soul, connected with which is a future
retribution; —— With respect to the Souls
immortality, every Question relating thereto
may be solved from the Nature of the Soul,
its State ~~Death~~ at death, as it certainly may
exist apart from the body; or from prin-
ciples of Religion — —

Natural Law,

Jurisprudence is the Science of Law; —
Law in its most general sense is "A Rule
of Action" — in this place we mean "A
Rule of human Action. — As spoken to
intelligent beings, it is called "Moral Law"
and may be defined, "any general expres-
sion of what ought to be chosen or done".
Considered in respect of its source, it is ori-
ginal or Natural; and Adventitious, or
conventional. — The Natural, or that
which may be known merely by the

light of nature is what we have more immediately in view at present —

The Obligation of every Law, whatever may be its Source, or subject, is resolvable into an Obligation of the Law of Nature —

The fundamental Law of Nature, — as it respects mankind, is, an expansion of the greatest good competent to human Nature — Other Law are branches and applications of this —

There are two parts in every Law, the Precept, and the Sanction; — The sanction of any Law is the Good or ill annexed to the observance, or neglect of it — The sanction of Moral Law in general is, That to observe it is to be happy. — To neglect it is to be miserable. In respect to external Action, this sanction varies in respect to its mode of operating, in two ways, — by considerations of force, and considerations of profunity — The first is the sanction of compulsory Law; the 2d the sanction of duty —

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Sanctions of compulsory Law are forcible means used by men to vindicate their own & others Rights. — Sanctions of Duty are any considerations that induce men from choice to act properly. —

The Laws of Morality relate to individuals simply considered, or to collective bodies as to matters of conduct — With respect to individuals, — Conduct required or ~~followed~~ forbidden under the sanction of compulsory Law, is the subject strictly of Jurisprudence, — the other is the subject of Casuistry — Conduct relative to a State or community is the subject of Politics —

The first compulsory Law of Nature, is the prohibition of wrongs —

In Jurisprudence there are two parts, the first respects the Rights, the second the Defences of men —

Rights.

Regarding the original, general Idea of the word Rights, it implies the primitive Rule of human Actions— As a personal quality, it is "a mans power to use his Liberty", and to act in a particular manner under conduct of reason— There is a distinction between a simple power and Right. The first is a physical quality, the other a Moral—

As Rights are Ascertained by the Law of Nature, it is proper to refer them to that Law—

In this view, a Right has been defined, a faculty or claim established by Law, to act, or profess, or to obtain something from others— Or it is, "The relation of a person to a thing, (in which no alterations ought to be made without his own consent"— There is an Obligation corresponding to every Right,— They are therefore correlative Terms— The regard to Rights arises from a disposition to preserve ourselves, and fellow creatures— as more or less necessary to preserve human Life, they have been divided into the perfect, and Imperfect—

The first in particular must be maintained.
The rights called external have no countenance
from the Law of Nature.
Rights and their juridical correspondent obli-
:gations, have a respect to the juridical rela-
:tions and states men stand in to each other.
A state is "same permanent condition, one is
placed in including a series of rights and obli-
:gations" — This is either Natural, or Adventi-
:tious.

General Divisions of Rights.

They have been considered as public, pri-
:vate, and common to all, in as much as
they regard some society, individual, or man-
:kind in general — perhaps it would be
better to consider them with respect to their
subject and source — In the first respect
they are personal, or real, — in the second
Original or Adventitious — Personal rights
subsist in the person, and are the constitu-
-tion of his Nature — Persons are Natural,
or adventitious — The first are individuals,
the second are Corporations, or States —

Real rights subsist in things of which one may have the exclusive Use — They may be referred to three principle heads, Possession, property, and, Command — The first constitutes a right just while the temporary use of it remains — the next constitutes a continual right, or what has been called a permanent property as long as the thing remains — The last is a right to the service, or obedience of others. —

Original Rights are the Connatal appurtenances of human Nature, and coeval with its being) — Personal Rights are comprehended in this Class — Original Rights have no place with respect to the Power of Some over others, except in restraining from wrong — yet the power of parents over Infants is original ——

Adventitious Rights are constituted by some human Institution, — They accrue various only to men in the course of human Affairs — Original Rights, like intuitive propositions, are recognized, as soon as mentioned.

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Adventitious Rights, like proposition to be disposed, only as far as they are proved. Real Rights belong to this Class; - and these leading heads, possession, property, and command are the subjects of adventitious rights.

The means of acquiring adventitious rights may be referred to four heads - Occupancy, Labour, Convention, & Fortitude.

The distribution of rights laid down by Dr Hutchinson differs somewhat from the foregoing. —

Complete Property is described, The right of taking the entire use of any Goods, and of alienating them at pleasure. It is considered either as Original, or derived. The Original arising from the first occupation of things formerly common; - the Derived, having been transfered from a former proprietor. —

Derived Rights too may be distinguished into Real and Personal. —

Property then is considered as furnishing materials for the last, and our natural Liberty as the foundation of the last.
Derived Real Rights are either compleate property transferred, or certain parts of the rights of property subsisting separately from the last. — Then last are referred to four Classes
1 The right of possessing what belongs to another in case of Goods found, or fairly taken from one who was not the proprietor.
2 The right of Heirs entail. —
3 The right of pledge or Mortgage. &c
4 Rights to the small use of some property of others called Servitudes &c

Ways of Transferring property &c
It may be transferred either by the voluntary Deed of the former proprietor, or by appointment of Law Natural or Civil; and in each of them, either amongst the living, or upon the account of Death. —
First, It is transfered among the living, by

30 b Deed of the proprietor, gratuitously in donations, or for some valuable consi:deration. —

2 It is transferred among the living indepen:dantly of the deed of the proprietor, by ap:pointment of Law, for the performance of whatever the proprietor was bound to do and yet declined —

3 It is transferred upon the event of Death, first, by the Deed of the proprietor, In Testamentas. —

Second without Deed of the proprietor.

1 A valid Testament or Will" is any well attested declaration, of one's pleasure with regard to the disposition of his Effects upon the event of Death —

2 The Law of Nature makes no essential Difference among persons in equal degrees, on account either of Sex or Seniority; neither doth it establish the lineal pre:cision —

Contracts, In general

In human Nature there is a disposition or propensity to form Contracts. — Whence may this be supposed to arise? —

Probably it is an original principle, or rather it proceeds as a necessary consequence from reason and speech. —

When may a person be said to form a Contract? —

When he affirms to others that he will pay or perform any thing, with the professed view that they shall pay or perform something on their part. —

How is a Contract defined? —

The Consent of two or more to certain terms with a view to constitute, or abolish an obligation, — The engagement of parties to perform what is supposed to be in their power. —

Are the rights founded on contracts of the perfect kind?

In general they are, and in all such cases, the Compulsory Law which in its original form is prohibitory, or negative, becomes positive,

requiring that every just engagement should be fulfilled —

What are the proper matters of Contract?
Our Labours and Goods; in general all such things as the interest of Society requires to be interchanged amongst men. —
What are the different denominations of Cont.?
Absolute, or Conditional, Single or Reciprocal.
How are the absolute constituted?
By a simple promise and acceptance.
How the Conditional? c
They express promise & acceptance, under a cond.
What do single Contracts consist in? —
The promise of one party and acceptance of the other
What the Reciprocal? c
Mutual promises, & mutual acceptance.
There are circumstances to be regarded in explaining the nature of Contracts, and certain exceptions to their obligations. What have they relation to? —
The Understanding the Will, the matter by which the Contracts are made. —

What are the circumstances in general that make a contract void? c
Force, Fraud, Injustice, or Impossibility.
What particulars are called essential in Contracts? c
The Nature of the Goods, the quality upon w.h their value depend, and the effects of those qualities.
What may be the exceptions to a condational contract?
A failure of the condition, or its being found unjust, or impossible.
What is meant by a condition? c
Some event yet uncertain to one or both the parties, on the existence of which the validity of the contract depends c
What distinction is there among conditions? They are either voluntary, in the power of either party, involuntary, or mixt.
With regard to the matter of contracts, what points are to be considered? c
The Lawfulness, and possibility. c

34/ Q. Have an Obligations in the Use of Speech any affinity to those in contracts &c
A very near one; the communications and well conducted commerce of senti=ment being a very important matter.
How may promises and testimonies in very weighty affairs, gain full confir=mation? &c
By the proper reverential use of Oaths.
Q. How is an Oath defined? &c
An Affirmation, negation, or promise, corroborated by the attestation of the Divine Being &c Or
A Religious Act in which for confirmati=on of something doubtful, we invoke the Supreme Being, as Witness and avenger, if we deviate from truth. &c
How far is an Oath binding?
No farther than is consistent with our previ=ously constituted obligations, both to God & man
Beside the Usual division of Oaths into promis=-sory, and assertory. What are their subdivisions?

The latter are either necessary, judicial, or voluntary, by mutual consent, but not by Judgment. —

What is a Vow? —

A Religious promise made to God, binding us to some performance, attended with an invocation as before.

How far are Vows Obligatory? —

No farther than Contracts may be, and in many cases not so far.

Of Value.

What is the Ground of value, and consq.ly of price in things? —

Their fitness to yield, or to procure some use, or pleasure. —

Is price ever termd value? —

Sometimes; it being one species of it. —

What is meant by value? —

It has a two fold meaning; it signifies the suitableness to yield profit or pleasure, and also what has the power of purchasing such an object. —

What do you call the first? — Value, or Use. —

36 / What the grand Value in exchange.—
What is the measure of Value in any
Article of Commerce or Trade?—
The Labour employed in procuring it.
Must not Labour then have been the first
price paid for all things?—It must.—
Is the value of things commonly estimated
in this way?—
No, it is often difficult to fix the proportion between two different quantities
of Labour.—
How then is exchangable value estimated
usually?—
By the quantity of some other commodity.
But is there not a more obvious way of
estimating exchangable value?—
Yes, by the quantity of money.—
Is there not a distinction with regard to
commodities between their real and
nominal values—
Yes, Labour which does not fluctuate in
its real value, is the real price; Money
is the Nominal.—

Zoonomia.

Sect: I.

Of Motion.

The primary motions of matter may be divided into three Classes, those belonging to Gravitation to Chemistry and to life; to which may be added a fourth. viz those of the Supposed ætherial fluids of Magnetism, Electricity, heat, and light, —

Sect: II

The similarity of the texture of the brain to that of the Pancreas and other glands has induced some to suppose that a fluid more subtile than the electric aura is separated from the blood by that organ for the purposes of Sensation and motion. —

Sect: 3ro

Motion may be defined to be a Variation of figure.

Sect: v

Of the four faculties or motions of the Sensorium— viz of Irritation, Sensation, Volition, & Association.

vii, Cure of decreased Exertion—

The Chronical debility brought on by drinking Spirituous liquors — may be treated by advising the Patient to omit one fourth part of the Vinous Spirit they are accustomed to and if in a fortnight their appetite increases they are advised to omit another fourth part — but if their digestion is impaired from the want of this Spirituous potation they are advised to continue as they are — rather than to risk the encounter of greater evils at the same time flesh meat, with Peruvian Bark and Steel in Small quantities between their Meals, and ½ a grain of Opium or a grain with five or eight grains of Rheubarb at Night.

This appears in the Mimosa or Sensitive plant. The dionoa Muscipula or Venus's Flee trap —

The Stamens or male parts & pistils or female parts shew evident Marks of Sensibility not only from many of the Stamens and some pistils approaching towards each other at the Season of impregnation but from many of them closing their Calyxes or Cups & petals or flowers & leaves during the Cold part of the day —

The approach of the Anthers or Receptacles of the pollen or male Semen in many flowers to the Stigmas or Receptacle of the female Semen — and of the pistils of some flowers to the anthers must be ascribed to the passion of love and hence belongs to Sensation —

The Male Flowers of Vallisneria approach still nearer to apparent Animality, as they detach themselves from the parent plant and float on the Surface of the Water [illegible] male ones —

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